

2003

# Annual Report

**ALPS ELECTRIC CO., LTD.**

For The Year Ended March 31, 2003



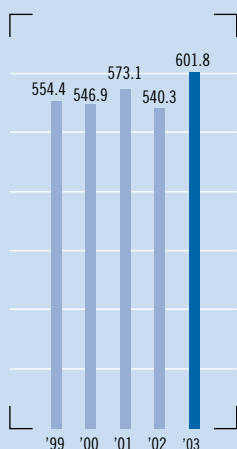
**ALPS**

# FINANCIAL HIGHLIGHTS

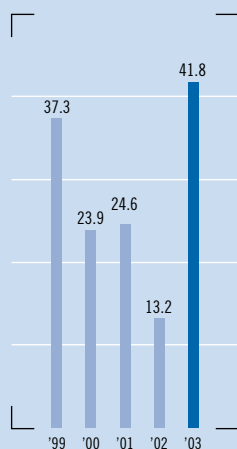
YEARS ENDED MARCH 31, 2003, 2002 AND 2001	Millions of yen			Thousands of U.S. dollars (Note 1)	Percent change
	2003	2002	2001	2003	
<b>For the year:</b>					
Net sales	¥601,816	¥540,268	¥573,064	\$5,006,789	11.4
Operating income	41,813	13,249	24,554	347,862	215.6
Income before income taxes	35,153	8,695	24,931	292,454	304.3
Income taxes	12,535	3,415	4,210	104,285	267.1
Net income	17,513	1,902	18,111	145,699	820.8
Capital expenditures	34,864	31,832	31,403	290,049	9.5
<b>At the year end:</b>					
Current assets	¥298,845	¥293,636	¥289,283	\$2,486,231	1.8
Current liabilities	202,764	190,878	230,288	1,686,889	6.2
Working capital	96,081	102,758	58,995	799,342	-6.5
Stockholders' equity	148,881	137,513	131,901	1,238,609	8.3
Total assets	480,914	484,831	479,032	4,000,948	-0.8
<b>Amounts per share of common stock:</b>					
Net income	¥ 96.27	¥ 10.53	¥100.21	\$0.80	814.2
Cash dividends applicable to the year	12.00	5.00	12.00	0.10	140.0
Stockholders' equity	824.17	760.96	729.84	6.86	8.3
Price earnings ratio (times)	14.79	152.42	12.25	—	-90.3
Price book value ratio (times)	1.73	2.11	1.68	—	-18.0

Note: For convenience only, the accompanying Japanese yen amounts for 2003 have been translated into U.S. dollars at ¥120.20 = \$1.00, the exchange rate prevailing on March 31, 2003.

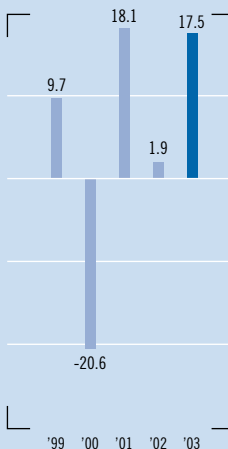
**NET SALES**  
(Billions of ¥)



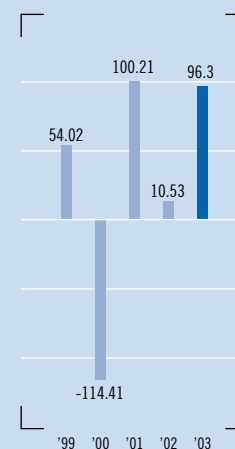
**OPERATING INCOME**  
(Billions of ¥)



**NET INCOME (LOSS)**  
(Billions of ¥)



**NET INCOME (LOSS) PER SHARE**  
(¥)



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## A TECHNOLOGY-ORIENTED ALPS



### NANO-PROCESSING TECHNOLOGY

ALPS emphasizes the core competence of its internal fabrication of manufacturing equipment, especially molds and dies. ALPS' microscopic machining technology takes molding to the limits of miniaturization, down to the molecular level of the "nano-world," which is measured in billionths of a meter. The Company is already utilizing nano-precision in the GMR head film coating process. By further pursuing nano-technology, ALPS will be able to offer value-added products providing exceptional functionality and efficiency.

### COMMUNICATIONS TECHNOLOGY

ALPS has a wealth of high-frequency technologies that are key to the realization of a "ubiquitous network society." Our product lineup includes broadcasting tuners, transceivers for mobile phones, transceivers for wireless LAN, electronic toll collection modules used in automobiles, and other products that support communications scenarios of the future. ALPS combines our long-standing expertise in analog technology with the latest in digital technology to offer the world high-quality, highly reliable products.

As electronic devices become more multi-functional and convenient, it is increasingly important to provide easy-to-operate interfaces. ALPS uses its years of experience in electronic component manufacturing to provide user-friendly input/output devices and displays. ALPS' digital devices integrate features such as the click-feel of switches, the keystroke of keyboards and the high picture quality of displays and printers.

### HUMAN MACHINE INTERFACE

Noh is a traditional Japanese art often viewed as "moving sculptures." The masks in Noh are used to seduce the audience into a mysterious world. Possessing both precise shape and lustrous complexion, Noh masks are a traditional form of art that require technique passed down from generation to generation and master workmanship to create.

In modern industry, nano-technology is entering the limelight as the ultimate technology, much like the master skills of the Noh mask creator. At one billionth of a meter, nanotechnology works barely within the range of visibility of electron microscopes.

ALPS has taken its accumulation of microscopic processing technologies to a new stage of advancement by working persistently at the development of nano-processing technologies. Our proprietary nano-processing technology is superior in creating such devices as GMR heads and diffractive optical devices, keys to a digital networking age.

ALPS pursues the ultimate in fine electronic components, and we could not accomplish it without nano-processing technology.

## TO OUR STOCKHOLDERS

# WINNING IN THE CHANGING GLOBAL MARKET

### CONSOLIDATED RESULTS

The electronic components industry faced a difficult year in fiscal 2003, ended March 31, 2003, with no indications of an economic recovery in Japan and an unclear future for the global economy. Despite these circumstances, ALPS worked aggressively to acquire orders, and, as a result, consolidated performance was better than in the previous fiscal year.

In fiscal 2003, consolidated net sales grew 11.4% to ¥601,816 million (US\$5,007 million). Operating income was ¥41,813 million (US\$348 million), and net income totaled ¥17,513 million (US\$146 million).

In the electronic components segment, sales of components grew due to favorable demand for game machine switches. In addition, sales of magnetic devices expanded with the addition of new 60-80 GB/PL products in giant magneto resistive (GMR) heads for hard disk drives (HDDs). However, sales declined in communications owing to the contracting business scale in transceiver units for code division multiple access (CDMA). In peripheral products, despite firm overseas demand for color STN-LCDs for mobile phones, sales were largely unchanged from the previous fiscal year due to a fall in market prices for floppy disk drives. Sales in automotive electronics increased due to the contribution of new products including the passive keyless entry system.

In the audio equipment segment, ALPINE concentrated its efforts on operations in mobile multimedia, for which it expects market scale to expand in the future. Sales increased owing to strong demand for CD car audio systems in the OEM market and aftermarket in Europe and the United States, and growth in sales of audiovisual car navigation systems to automobile manufacturers.

In the logistics segment, which includes other businesses, ALPS LOGISTICS provides services tailored to customer needs through the global development of comprehensive logistics operations with specialization in certain fields. During fiscal 2003, the volume of freight handled for electronic-related components remained in a slump. However, ALPS LOGISTICS was able to increase sales in logistics operations by improving business efficiency and bolstering its network of overseas bases.



## STRUCTURAL REFORMS

One year has passed since ALPS initiated business restructuring in the electronic components segment in April 2002. These reforms involved realignment of the segment into five core businesses, namely components, magnetic devices, communications, peripheral products and automotive electronics. Based on this structure and by integrating marketing and manufacturing, we have bolstered our responsiveness to market change, and have begun to see solid results in the form of higher sales.

Our efforts in technological development focus on three technological challenges: nano-processing technologies, based on our microscopic processing technologies; communications technologies, which contribute to the development of information communication networks; and human machine interface, which pursues friendly interfaces between people and electronic devices. ALPS is also promoting a technology-oriented mindset throughout the Company, where employees learn the skills necessary to do their jobs not only in technology departments, but also in marketing, manufacturing and administration.

Along with business restructuring, we made efforts to expand and integrate operations by establishing marketing sections in each business to integrate customer feedback more quickly into the technology and development processes.

To create more efficient operations, ALPS has decided to dismantle and liquidate its consolidated subsidiary Tohoku Alps Co., Ltd. in October 2003, and transfer all of its functions to the parent company.

Despite this progress, these business reforms have just begun to take hold. We will continue to promote these changes throughout the entire organization during fiscal 2004.

## FOURTH MEDIUM-TERM MANAGEMENT PLAN AND FISCAL 2004 ACTION PLAN

The basic aim of the Fourth Medium-Term Management Plan, which started in April 2003, is to improve the quality of operations through the creation of profitable businesses. Based on the three aforementioned core technological challenges, business development aims to create new businesses in mainly the automobile market, and to develop operations primarily in China.

Our Fiscal 2004 Action Plan is based on three guidelines: “CTB (Create the Business),” “GTB (Get the Business)” and “GTP (Get the Profit)”. The action plan aims to create new businesses with advanced technology, acquire orders and generate profits.

With an emphasis on quality above all else, ALPS is making concerted efforts to improve the quality of its products and also the caliber of its employees.

The action plan will remain a central philosophy of ALPS in the advancement of business activities not only in fiscal 2004, but in the future as well.

## ENVIRONMENTAL ACTIVITIES

The Third Medium-Term Voluntary Action Plan for environmental protection, which we launched in fiscal 2001, tackles the issues of energy conservation, zero emissions and “green procurement”. We have achieved a level of success in cutting down on waste and increasing recycling in line with our targets. The completion of these targets is a priority in our next action plan. We aim to create new technologies and products with a minimal impact on the environment by making them easier to recycle and reuse at the development and engineering stages.



## ALPS TOMORROW TODAY

### *CONTRIBUTING TO HEALTHY GROWTH IN SOCIETY THROUGH MANUFACTURING*

In Japan, the decline in academic ability among younger generations is a current topic. Creating an opportunity for children to show interest in a hobby allows them to concentrate their energies and feel the pleasure of creating something of interest to them. We believe that this can naturally lead to an interest in science and an improvement in academic ability.

First, we believe that an adult must actually show children how things are made. For this reason, we hope to spread our joy and interest in technology to local communities, beginning at ALPS, through the planning and sponsorship of plant tours and workshop classrooms where parents and their children can participate together. We hope to provide an opportunity in this way for young people to share our joy and interest in making things as they build their lives.

## ALPS TOMORROW TODAY

### *PRINCIPLES BEHIND GLOBAL DEVELOPMENT*

The fundamental philosophy of ALPS for global development is to develop, manufacture and sell wherever there is a market for its products, and to contribute to the advancement of the electronics industry in the countries where it operates. At ALPS, global development does not mean making inroads into a country simply in search of cheap labor.

We view globalization as the ability to seamlessly communicate across borders and nationalities. To accomplish this, we believe it is necessary to learn each other's cultures, customs and histories.

ALPS is changing its stance on dispatching managers from Japan to take charge of local subsidiaries. Local employees are cooperating in improving their skills, and there are cases where employees sent from Japan are placed under local management. At the same time, employees from overseas subsidiaries come to Japan on both short-term and long-term assignments, and in the process learn about Japan's customs and history. Regardless of location—whether in the United States, China or Germany—an employee under the ALPS name is a member of the ALPS community. We believe that experiencing and learning the ALPS culture is more important than anything else.



There are no national borders to such environmental problems as air pollution, and the problems of one country affect the entire world. Based on this viewpoint, ALPS is promoting environmental management in its global business structure in tandem with the overseas development of operations. The Company has 83 bases in 21 countries around the world. At its overseas production bases, ALPS is putting managers in charge of environmental issues, implementing environmental auditing and supporting the acquisition of ISO 14001 certification. The ALPS Group is working to improve its environmental management on a global basis through the promotion of affiliations and the exchange of information between overseas and domestic business offices.

During the fiscal year ending March 31, 2004, the world will continue to focus on such issues as reconstruction after the Iraq war and containment of the severe acute respiratory syndrome (SARS) epidemic. Under these conditions, ALPS is making Companywide efforts to reform management, and innovate and advance operations.

We offer sincere thanks to our stockholders and ask for their continued support as we move forward in fiscal 2004.

June 2003

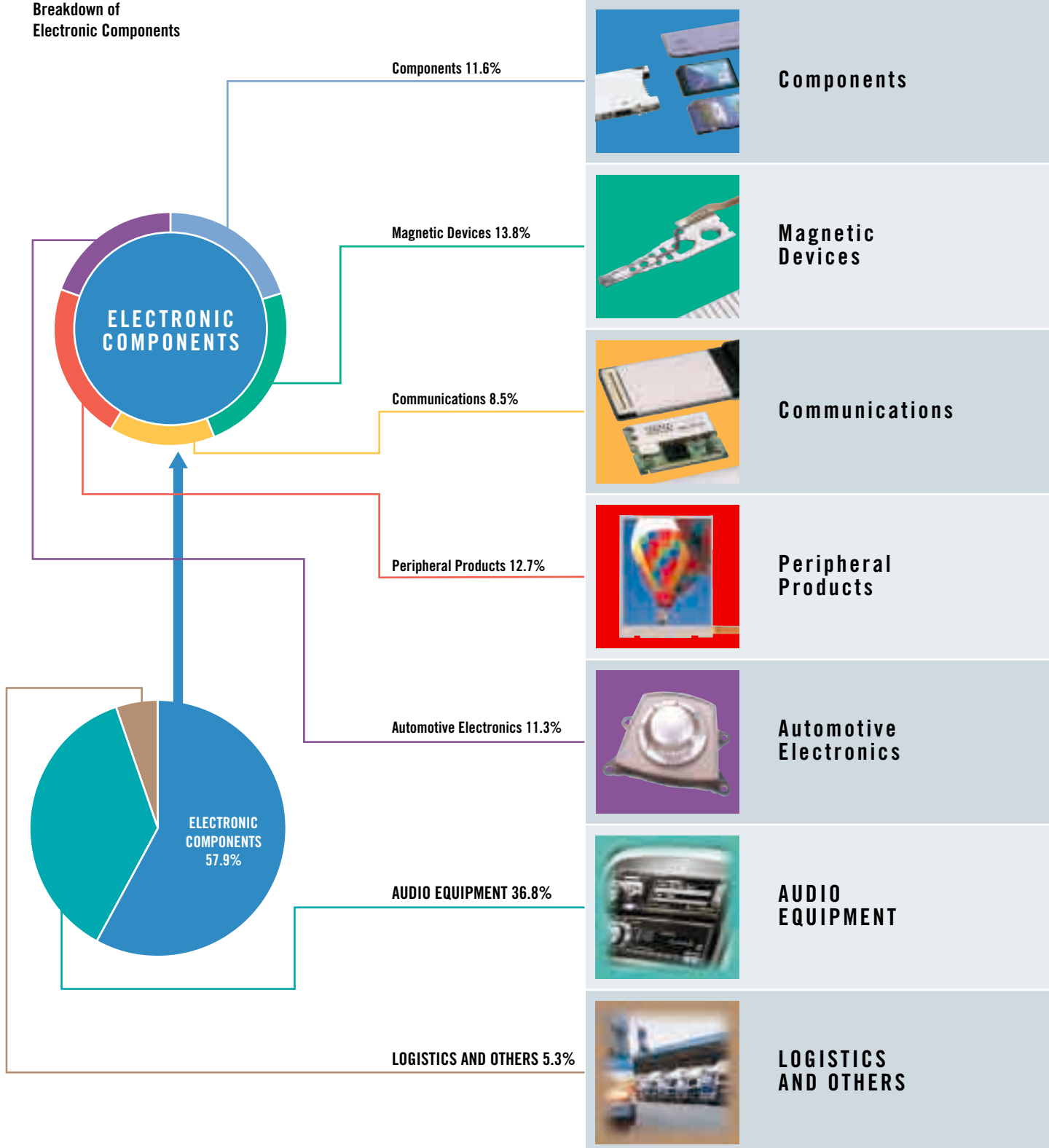
A handwritten signature in black ink, which appears to read "M. Kataoka". The signature is fluid and cursive.

**MASATAKA KATAOKA**  
PRESIDENT



# ALPS GROUP AT A GLANCE

Breakdown of Electronic Components





**KEY LINE OF BUSINESS**

**BUSINESS OUTLINE AND TOPICS**

- Potentiometers
- Encoders
- Switches
- Sensors
- Connectors

- This segment is one of ALPS' core businesses, and carries a wide lineup of electric components such as switches and potentiometers.
- ALPS' push-push type of 3-in-1 connectors offer compatibility with the three types of memory cards in a single card slot.
- Durable long-life sensors including throttle-position sensors and rotary sensors are mass produced for the automobile market.

- GMR thin-film heads for HDDs
- Magnetic heads for audio applications
- Magnetic heads for VCRs

- This segment's GMR thin-film heads for HDDs are winning high regard for advanced technological features that enable higher recording density.

- Analog tuners for TVs and VCRs
- Tuners for digital broadcasting and broadcasting satellite
- Voltage-controlled oscillators (VCOs) for mobile phones
- Transceiver units for communications
- Communication network modules
- Aspherical molded glass lenses for optical communications

- ALPS' communications business utilizes the vast know-how accumulated over the analog and digital eras.
- Tuner units for digital terrestrial broadcasting are among the world's smallest, featuring internal demodulators compatible with Japanese, U.S., and European broadcasting systems.

- Color super twisted nematic (STN) LCDs
- Game controllers
- Photo printers
- GlidePoints®
- Remote control units
- Low-profile operation units

- ALPS has commercialized transfective mode color STN-LCD able to reproduce 65,536 colors through its highly efficient reflective panels.
- Film GlidePoint® employs film in the sensor portion to realize a thickness of only 0.6mm thanks to a multilayer circuit construction and the company's innovative printing and conductive connection.

- Air conditioner operation units
- Door modules
- Steering modules
- Clock springs for air bag systems
- Remote keyless entry systems

- ALPS has brought to market the Haptic Commander™, a revolutionary control device employing force-feedback technology.
- Tire Pressure Monitoring System (TPMS), which complies with coming law in the United States, has been developed with proprietary high-frequency technologies.

- Car audio systems
- Car AV systems
- Car navigation systems

- ALPINE strives to make its name synonymous with superior sound quality.
- This year marks the 25th anniversary of the ALPINE brand name.

- General logistics services

- Based on the concept of supply chain management (SCM), the company provides high-quality logistics services to customers mainly in the electronic components through a global network of expanding distribution bases.

## FIVE BUSINESS DOMAINS FOR ELECTRONIC COMPONENTS

### COMPONENTS

The components business is built on technologies and knowledge amassed by ALPS over the past 55 years since its founding, which came with the Company's development of the rotary switch. This business has great strengths, anchored in such functions ranging from its formidable tooling engineering capability and use of cutting-edge technologies, to its group of business units represented by professionals focused on expanding sales.

ALPS' proprietary manufacturing technologies ensure the long life and high reliability of its components, while playing a major role in providing greater dependability in its set products. Supported by our excellent technology and mass-production capabilities, ALPS' TACT switches are a prime example of the confidence that customers have in our components, as demonstrated by their No. 1 share of the world market.

ALPS' components business has commercialized a wide variety of products, and has the capability to develop diverse technologies in tandem with a global supply and service structure positioned to meet customer expectations. The Company aims to expand aggressively into a wide range of fields, including the AV devices, communications and automobile markets.

### KEY PRODUCTS

**Connectors for Small Memory Cards** Small memory cards are rapidly penetrating the marketplace as storage media for digital still cameras and mobile information terminals. SD Memory Cards, MultiMedia Cards and the Memory Stick™ are the principal types of small memory cards in use, and have different shapes and connector terminals. Until recently, set devices had been unable to transmit or share data among different types of storage media.

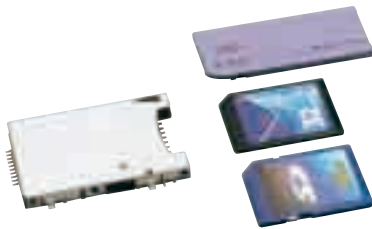
ALPS was the first in the industry to commercialize the push-push type of 3-in-1 connectors, which offers compatibility

with the three types of memory cards in a single card slot. To develop this type of connector, the Company drew on its accumulated precision-molding technologies to adjust the structure and positioning of the connector terminals inside the slot. By employing its thin-body-forming technologies, ALPS is promoting the creation of thinner, increasingly compact connectors, which will lead to added design freedom for sets and the realization of even more compact mounted devices.

Note: SD Memory Card is a registered trademark of Matsushita Electric, Toshiba and SanDisk. MultiMedia Card is a registered trademark of Infineon Technologies of Germany. Memory Stick™ is a registered trademark of Sony.

**Sensors** ALPS has succeeded in developing a state-of-the-art resistive material to satisfy the stringent requirements of automotive sensors for long life, heat resistance and vibration resistance. The Company mass-produces durable long-life sensors in a variety of types, including throttle-position sensors, exhaust gas recirculation (EGR) sensors and rotary sensors that offer such properties as maintenance of optimal temperature, low-friction characteristics and chemical resistance. The Company also supplies other sensor products to the automobile market, including chassis-height sensors and those that detect the angle of vehicle headlights.

**Contact Sheets®** To meet market needs for slimmer mobile phones, ALPS has commercialized Contact Sheets®-sheet switches for mobile phones-based on contact technology and other proprietary ALPS technologies. As a result of their long lifespan and high reliability, afforded by a structure that is strongly resistant to the intrusion of debris, and thanks to their superb operating feel, our Contact Sheets® are capturing the attention of customers.



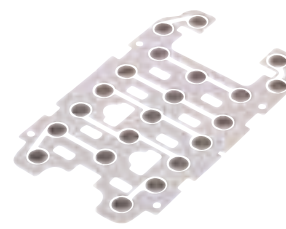
#### CONNECTOR FOR SMALL MEMORY CARDS

A combine type connector compatible with multimedia cards, SD memory cards and Memory Stick™, adapts push-in push-out eject mechanism



#### LONG LIFE ROTARY SENSOR—IDEAL FOR CHASSIS HEIGHT SENSORS

Realizes durability of 10 million cycles of total rotation and 100 million cycles of dither operations with a waterproof structure



#### CONTACT SHEET®

Features dust-resistant sheet structure for highly reliable performance. Low-profile design available for mobile phones



**ALPS WILL CONTINUE TO DEVELOP PRODUCTS  
ENGINEERED TO FULFILL SPECIFIC NEEDS  
FOR CUSTOMER DELIGHT.**

CONNECTORS FOR SMALL MEMORY CARDS



**ALPS IS ABLE TO STEADILY PROVIDE HIGH-QUALITY PRODUCTS THANKS TO ITS SUBSTANTIAL ASSORTMENT OF PRODUCTION TECHNOLOGIES.**

GMR HEADS FOR HDDS

## MAGNETIC DEVICES

The magnetic devices business began by specializing in magnetic heads for audio applications. It has since evolved to include the development of magnetic heads for VCRs, and GMR thin-film heads for HDDs as a mainstay of its operations.

ALPS' GMR head technologies take full advantage of incomparable thin-film and precision processing technologies on submicron and nano levels. It is noteworthy that the Company has achieved high-precision thin-film deposition with dislocation less than the size of one atom and a margin of thickness error of (0.1 nm, by utilizing its magnetic material film depositing technology.

Thanks to the Company's accumulated proprietary technologies, the magnetic devices business will continue to reinforce its operations and cultivate thin-film technology for the continued creation of new products.

### KEY PRODUCTS

**GMR Heads for HDDs** In the HDD market, recording density has increased more than 100% annually, owing to the rapid proliferation of HDDs for such applications as PCs with installed video software, and in video recorders. This trend has been accompanied by demand for even-higher densities in magnetic heads mounted on HDDs, which are typically composed of a thin-layer recording head and a GMR head for playback, and

has spurred manufacturers to develop larger-capacity heads.

To meet increasing market needs for higher-capacity HDDs, ALPS has utilized its proprietary processing technologies to undertake a detailed reevaluation of its processing methods, focusing on such areas as the film thickness of GMR layers and the optimal formation of materials. This has enabled a further raising of reproduction output. ALPS' newly developed GMR heads boast the industry's highest recording density of 65Gb/inch<sup>2</sup> (80GB/PL).

In addition, ALPS will further solidify its production technologies, including thin-film, gilding and precision processing technologies, accumulated in the manufacture of GMR heads, which will enable the stable supply of high-quality products.

HDDs are increasing in importance as a storage device for not only PCs, but also for home electronic applications, including video recorders, set-top boxes and home-use servers.

To respond to these growth markets, ALPS is working toward the realization of GMR heads with a recording density of over 90Gb/inch<sup>2</sup> (120GB/PL), and will further advance R&D efforts as it continues striving to commercialize new products.

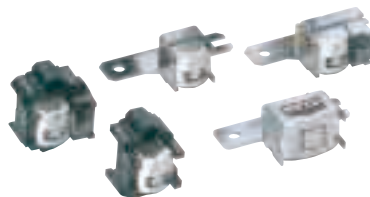
Notes:

1. GB = gigabyte/PL = platter. This is the data memory capacity for each disk. In this report, all figures are based on 3.5-inch disks.
2. Gb = gigabit/inch<sup>2</sup> = square inch. This is the data memory capacity per square inch on a disk.



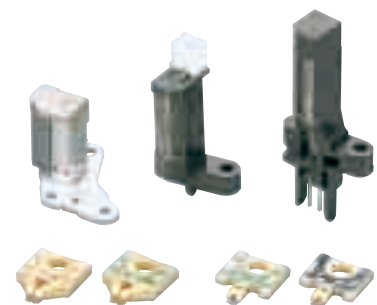
**GMR THIN-FILM HEAD FOR HDD**

GMR head compatible with 65Gb/inch<sup>2</sup> (80GB/PL) HDDs. Uses a bottom spin valve/hard bias for the basic structure of the reproduction head. Boasts the industry's top-class high recording density



**MAGNETIC HEADS FOR AUDIO APPLICATIONS**

Realize stable tape running and are employed for simplified set assembly process



**MAGNETIC HEADS FOR VIDEO APPLICATIONS**

Realize high output, low noise and long life, with unique materials and technologies



## COMMUNICATIONS

Broadband is currently the biggest trend in the electronics industry. Technologies and systems for the ubiquitous network society, in which information can be accessed anytime and anywhere by society, are increasingly widespread.

That in turn means that incredible business opportunities based on high-frequency and optical technologies have emerged for ALPS' communications business, which can apply the vast know-how accumulated during the analog era to the digital era.

### KEY PRODUCTS

**Digital Tuners** In 1997, ALPS succeeded in developing and launching the world's first digital terrestrial television (DTTV) in England. In 2003, ALPS developed a series of tuner units for digital terrestrial broadcasting that are in a class with the world's smallest, featuring internal demodulators compatible with Japanese, U.S. and European broadcasting systems. In addition, ALPS has been developing and commercializing products ahead of the launch of digital terrestrial broadcasting in Japan and countries around the world, such as the industry's first tuner for HD Radio™ (IBOC) digital AM/FM broadcasts in the United States.

Note: Demodulation is the conversion of a modulated carrier wave into a current equivalent of the original signal. The data are encoded in a carrier wave for transmission by modulating amplitude, frequency and phase.

**Communication Modules** ALPS has developed and mass-produced communications modules which are compliant with both the IEEE802.11a and IEEE802.11b high-speed wireless LAN standards, offering the capability of operating in different wireless LAN environments, such as in the office and the home. In addition, ALPS used its proprietary radio-frequency (RF) design technology to improve basic functions and produce a high-linearity, low noise device, significantly increasing receiver sensitivity by more than 20%. Consequently, the maximum range for stable data transmission is increased regardless of signal strength.

**Aspherical Glass Lenses for Optical Communications** Amid a steady increase in optical communications data traffic, asynchronous transfer mode (ATM), synchronous optical network (SONET) and other communications equipment are becoming more advanced and compact. ALPS has developed small CAN-type aspherical glass lenses. Significantly enhancing communication range and precision, these lenses are the first to be compatible with the industry's smallest TO-38 stem, and are designed for use in laser diode (LD) modules.

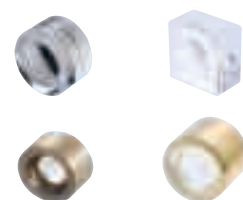
Note: The TO-38 stem is the metallic component used in LD modules and other coaxial optical devices (packages) and is the plate mounting for optodevices. The component is designed for use with a standard 3.8mm diameter lens holder.



**TUNER UNIT FOR DIGITAL TERRESTRIAL BROADCASTING**  
Industry's smallest size tuner with internal demodulators compatible with broadcasting systems in Japan, the U.S. and Europe



**COMMUNICATION MODULE FOR IEEE 802.11a/b**  
Combination-type for IEEE802.11a and IEEE802.11b high-speed wireless LAN standards



**ASPHERICAL GLASS LENSES FOR OPTICAL COMMUNICATIONS**  
Aspherical glass lenses enhance optical communications range and precision designed on the basis of ALPS' original optical-design technology



**ALPS' COMMUNICATIONS BUSINESS IS MEETING THE INCREDIBLE OPPORTUNITY FOR UBIQUITOUS NETWORK SOCIETY.**

COMMUNICATION MODULE FOR IEEE802.11a/b





**ALPS AIMS TO CHANGE THE STRUCTURE OF ITS PERIPHERAL PRODUCTS OPERATIONS INTO A BUSINESS BASED ON CORE TECHNOLOGIES.**

COLOR STN-LCDS

## PERIPHERAL PRODUCTS

ALPS aims to change the structure of its peripheral products operations into a business based on core technologies. Products incorporating materials and components using these core technologies have received kudos from our customers. These include reflective panels for color LCDs with a wide angle of visibility thanks to its high reflectivity, highly accurate printer heads made from thin-film technologies used in compact photo printers, and film products that combine circuit design technologies with film printing technologies.

Although a fiercely competitive field, ALPS will continue to expand sales of its competitive module products through a combination of its leading mechatronic technology and excellent software technologies.

## KEY PRODUCTS

**Color STN-LCDs** Color STN-LCDs, widely used as displays in mobile phones mainly in Europe and the United States, are gaining attention as a bright, transfective mode display able to use external light and backlighting to light the LCD, thus meeting demands for both high visibility and low power consumption.

ALPS has commercialized a transfective mode color STN-LCD able to reproduce 65,536 colors through its highly efficient reflective panels and LCD driving technologies developed from the Company's proprietary optical engineering, simulation, ultra-precise processing and mold processing technologies. The product is highly regarded as a display for mobile phones for its high level of brightness.

**Compact Photo Printer** The market for digital still cameras and mobile information terminals is growing rapidly. ALPS was quick to notice growth in this market, and had an early start at developing compact photo printers with an emphasis on mobility and high-quality images for the perfect image output device. The Company offers products that satisfy market needs through its product lineup of A9-size, business card-size and postcard-size printers.

To realize high image quality rivaling that of conventional film and battery operability for mobility, ALPS embarked on improving image quality, compactness, speed and energy savings through the application of its innovative printing technologies, which are based on core thermal printer head technologies and advanced printing mechanisms and thermal transfer technologies. ALPS will introduce new products into the home printing market, which it expects to grow further.

**Film GlidePoints®** As a pointing device for laptop PCs, GlidePoint® is incorporated in a majority of laptop PCs owing to its smooth operational feel for moving the cursor with a finger, and its thin design that sits flush with surrounding surfaces. Newly developed by ALPS, Film GlidePoint® employs film in the sensor (operational surface) portion to realize a thickness of only 0.6mm thanks to a multilayer circuit construction and the Company's innovative printing and conductive connection technologies.

This not only contributes to thinner laptop PCs, but also opens up the possibility for applications in wearable input devices based on the properties of flexible films.



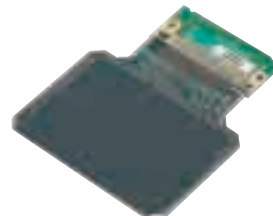
### COLOR STN-LCD

Reflective color STN-LCDs have achieved dramatic improvement in brightness through the effective use of light



### COMPACT PHOTO PRINTER

Compact design mechanism is suitable for digital still cameras and mobile products. Photograph quality achieved by adopting our original thermal-transfer method with variable-dot technology



### FILM GLIDEPOINT®

Low-profile and light-weight pointing devices designed for ease of use

**AUTOMOTIVE ELECTRONICS**

Automobiles will continue to evolve as electronics are increasingly used. One of the prominent strengths of ALPS' automotive electronics business is its ability to apply the proprietary technologies accumulated by ALPS as a manufacturer of electronics components, including mechatronic and high-frequency technologies, to the automotive products market. Another strength of the automotive electronics business is its global structure of sales, marketing and manufacturing based in Japan, the United States, Europe and Asia. In addition, the presence of ALPINE within the Group enables us perform joint development and sales.

In the automotive electronics field, which requires an extremely high level of reliability, ALPS aims to "Realize No. 1 in Body Electronics Area", and will continue to develop automotive electronics as a mainstay business.

**KEY PRODUCTS**

**Haptic Commander™** The Company has brought to market the Haptic Commander™, a revolutionary control device that integrates, into a single knob, controls for various equipment, including air conditioning systems, car audio systems and navigation systems. The product contributes not only to the integration of input devices but also to safe driving by alerting the driver to potential trouble through signals, such as restricted movement or vibration of the knob, without diverting attention from the road. The Haptic Commander™ is attracting considerable attention as a product based on original technologies and ideas, which provide a virtual sense of touch according to operational mode.



Touchsense Technology™  
Licensed by Immersion Corporation

**Passive Entry System** ALPS' passive entry system is a prime example of how the Company uses proprietary, advanced high-frequency technologies in the automotive electronics field. Boasting a compact body and stable communications performance, thanks to a 3-dimensional antenna, the passive entry system allows users to lock and unlock doors as well as start the engine without taking out their keys.

Built on the success of the Company's past efforts, high-frequency methods have become the de facto standard for remote keyless entry units. ALPS is furthering efforts in the development of products that use this proprietary technology in the automotive electronics field.

**Tire Pressure Monitoring System** With its extensive range of proprietary high-frequency technologies, ALPS has developed a tire pressure monitoring system (TPMS) that complies with coming laws in the United States that will require all new vehicles to incorporate tire pressure detection systems. This system allows drivers to monitor tire pressure at a glance of the instrument panel inside the vehicle.

The Company takes pride in numerous achievements and high reliability based on a deep understanding of safety requirements for automotive components, as evidenced by the development of various door modules and steering modules, including clock springs for air bag systems.



**HAPTIC COMMANDER™**

Central control device that operates more than one equipment in a car provides a tactile feedback to the driver regarding the state of operation




**PASSIVE ENTRY SYSTEM**

Key-free operations to lock and unlock doors and to start engine. Stable communication area achieved by 3D antenna



**TIRE PRESSURE MONITORING SYSTEM (TPMS)**

Direct pressure detecting type utilizing weak radio waves. Compliant with radio control laws in each country



**ALPS AIMS TO “REALIZE NO.1 IN BODY ELECTRONICS AREA,” AND WILL CONTINUE TO DEVELOP AUTOMOTIVE ELECTRONICS.**

HUMAN ENGINEERING COCKPIT



## ENVIRONMENTAL MEASURES

### SUMMARY OF ACTIVITIES TO DATE

This report presents the results of the Third Medium-Term Voluntary Action Plan for Environmental Protection from FY 2000 through FY 2002.

#### The Third Medium-Term Voluntary Action Plan and Results of Activities

Objective	Action target (FY 2000 - FY 2002)	Results of activities in FY 2002	Self-evaluation of the Third Medium-Term Voluntary Action Plan and its result
Development of EMS(Note 1) in overseas production bases	Promotion of ISO 14001 certification at overseas production bases	Three overseas bases newly acquired ISO 14001 certification. <ul style="list-style-type: none"> <li>•Dalian ALPS Electronics Co., Ltd. (June, 2002)</li> <li>•ALPS Electric (Malaysia) SDN. BHD. Nilai Plant (August, 2002)</li> <li>•ALPS Electric Czech, s.r.o. (January, 2003)</li> </ul>	✓
Prevention of global warming	Reduction of energy consumption per unit output (Note 2) Reduce energy consumption per unit output of FY 2002 by 2% from the FY 1998 level.	Energy consumption per unit output: 22.5kl/ 100 million yen 0.9 % increase from the FY 1998 level. (fallback) 16.3 % reduction from the FY 2001 level. (progress)	
Promotion in reduction and recycling of waste	Reduction of waste products per unit output (Note 3). Reduce waste products per unit output by 40 % from the FY 1998 level.	Waste products per unit output: 0.74t/ 100 million yen 41.0% reduction from the FY 1998 level. (progress) 23.0% increase from the FY 2001 level. (fallback)	✓
	Increase in recycling rate Increase the recycling rate of FY 2002 to 84%.	Recycling ratio: 84.7% 3.2% decrease from the FY 2001 level. (fallback)	✓
Promotion of the Chemical Substance Reduction Voluntary Plan	Complete elimination of organochlorine compounds Completely eliminate the use of dichloromethane by the end of FY 2000.	Completely eliminated the use of dichloromethane at the end of FY 2000.	✓
	Complete elimination of ozone-depleting substances Completely eliminate the use of HCFCs (Note 4) by the end of 2003.	HCFCs Purchases: 96t 40.5% reduction from FY 2001. (progress)	—
	Reduction of greenhouse gases Reduce PFCs/ HFCs (Note 5) by 60% by the end of FY 2010 from the FY 1998 level.	PFCs/HFCs Purchases (GWP (Note 6)conversion bases) : 45,435 t 51.4% reduction from the FY 1998 level. (progress) 50.2% reduction from the FY 2001 level. (progress)	—
Promotion of green purchasing	Prioritizing purchase from environmentally responsible suppliers.	Started implementation of green purchasing.	✓
Production of lead-free products	Beginning of lead-free product distribution from April 2001.	Progressing at two levels: 1. Electrode terminals/frames: Distribution began in April 2001. 2. Internal connection terminals: Distribution began in February 2002.	✓

Notes: 1. EMS: Environmental Management System

2. Energy consumption per unit output: The volume of energy used through the consumption of electrical power and heavy fuel oil (electrical energy converted to barrels of crude oil) divided by the value of production output.

3. Waste products per unit output: The volume of waste products consigned to waste disposal companies (expressed in terms of weight, less the portion intended to be recycled) divided by the value of output.

4. HCFCs: Hydrochlorofluorocarbons

5. PFCs/HFCs: Perfluorocarbons and Hydrofluorocarbons

6. GWP: Global Warming Potential. Index describing the relative warming of a unit mass of a greenhouse gas in comparison to the same mass of carbon dioxide.

Self Evaluation

✓ =Achieved

Blank =Not achieved

— =Not applicable

### OVERVIEW OF THE THIRD MEDIUM-TERM VOLUNTARY ACTION PLAN FOR ENVIRONMENTAL PROTECTION

ALPS has emphasized three themes: energy saving, zero-emissions and green purchasing throughout the business units.

For energy saving, the Company made a great deal of progress from the previous year, although the Company did not achieve the action target because the total energy consumption increased due to the increase in number of clean rooms and in total production.

In regard to zero-emissions, the programs at nearly every plant resulted in steady progress, and initially, ALPS had expected to achieve its action targets in recycling rate and volume of waste handled by waste disposal companies. Due to the issue of buried wastes at the former System Devices Division, Morioka Plant in Iwate Prefecture, the total recycling

rate was less than anticipated. The Company has already resolved this issue through appropriate measures, ensuring good progress next year.

The efforts towards green purchasing advanced significantly through establishing Green Procurement Prescript in July 2002 and promoting environmentally conscious procurement at the stages of R&D, planning and production as well as creating a global database for chemical substance management.

It is noteworthy that the Company has passed the ISO14001 certification process at 8 overseas production bases in 3 years.

ALPS will identify unresolved issues and prioritize counter-measures in the Fourth Medium-Term Voluntary Action Plan for Environmental Protection.

## PLANNED ACTIVITIES

ALPS will continue environmental efforts based on the Fourth Medium-Term Voluntary Action Plan for Environmental Protection through FY 2005.

### **Formulating the Fourth Medium-Term Voluntary Action Plan for Environmental Protection (FY 2003 through FY 2005)**

In the Fourth Medium-Term Voluntary Action Plan for Environmental Protection, which started this year, overseas production bases are included in the targets for environmental activities to reflect the global scale of business activities. The Company will continue to promote ISO14001 certification at overseas bases and encourage information sharing and exchange relating to environmental management.

ALPS will place full weight on the prevention of global warming, which was the targeted issue in the Third Medium-Term Voluntary Action Plan and focus on approaches towards zero-emissions.

In the approaches to products, the Company will consider the effect on the environment at the R&D and engineering stages, and promote measures company-wide approaches including at technology and production divisions.

### **The Fourth Medium-Term Voluntary Action Plan for Environmental Protection (FY 2003 through FY 2005)**

Objectives		Action target (FY 2003-FY 2005)
Management Develop an appropriate organizational structure and foster environmental awareness in each employee to achieve effective environmental management.	Environmental management System	1. Acquirement of ISO 14001 certification at overseas bases. 2. Promotion of information exchange with overseas operations.
	Environmental communication (External)	1. Periodical publication of environmental reports 2. Information distributions on the website
	Environmental education	Enhancement of environmental education programs for managers/engineers
	Environmental accounting	Establishment of environmental accounting
Environmental initiatives through the products Reduce the environmental load with environmentally conscious development and engineering.	Design for environment	1. Promotion of environmentally conscious engineering and development 2. Development of chemical substance database
	Reduction of hazardous substances	1. Complete elimination of banned substances Completely eliminate the use of lead, cadmium and hexavalent chrome by the end of 2004. 2. Reduction of restricted substances
	Green purchasing	Prioritizing the purchase from environmentally conscious business partners.
Environmental initiatives in the plants and offices Reduce the environmental load in production process and office operation.	Prevention of global warming	1. Reduction of CO <sub>2</sub> emissions Reduce CO <sub>2</sub> emissions per unit of output by 20% from the FY 2001 level. 2. Reduction of greenhouse gas (aside from CO <sub>2</sub> ) emissions Reduce the use of PFCs and HFCs at the end of FY 2010 by 60% from the FY 1998 level.
	Recycling	1. Complete achievement of zero-emissions Completely achieve zero-emissions by FY 2004. 2. Reduction of total amount of waste Reduce the amount of waste per unit of output in FY 2005 by 20% from the FY 2001 level.
	Management and reduction of chemical substances	1. Management of chemical substances Reduce the risk of contamination by promoting appropriate management of chemical substances. 2. Complete elimination of ozone-layer depleting substances Completely eliminate the use of HCFCs by the end of 2003.
	Green purchasing	Promotion of green purchasing for office supplies and company-owned cars
	Logistics	Promotion of environmentally conscious logistics
	Social service activities	Promotion of activities in society supporting environmental protection

## ISO 14001 AND ENVIRONMENTAL AUDITS

ALPS believes that acquiring the certification under ISO14001, the international standard for environmental management systems, is an effective means of improving environmental management activities, and is working to meet this standard throughout the company. All the domestic bases, including the Process Technology Development Center, have been certified. The Company's efforts have been extended overseas, marked the 9th overseas production base to meet this goal. All of the other overseas bases will be certified by FY 2005. All the certified bases conduct internal environmental monitoring once or twice a year according to ISO 14001.

### Number of Bases Obtaining ISO 14001

Bases	Target bases	Certified bases	Success ratio	Fiscal year of Certification					
				1997	1998	1999	2000	2001	2002
Japanese production bases	7	7	100%	0	4	3	0	0	0
Overseas production bases	12	9	75%	1	0	0	2	3	3

### Status of ISO 14001 Certification Acquisition

	Business division	Registration date	Certification body	Certificate number	Description of business
Japanese production bases	Communication Devices Division	August 14, 1998	JQA	JQA-EM0203	Development and production of communications and broadcasting products
	Mechatronic Devices Division	October 30, 1998	JQA	JQA-EM0243	Development and production of mechatronic and functional components
	Automotive Products Division				Development and production of automotive electronics products
	Production Engineering Development Center				Development of production technologies, including ultra-precision processing and advanced mounting technologies
	Peripheral Products Division	November 27, 1998	JQA	JQA-EM0264	Development and production of input, output, and display devices for PCs
	Magnetic Devices Division	December 24, 1999	JQA	JQA-EM0657	Development and production of heads and devices for magnetic storage
	Process Technology Development Center	March 17, 2000	JQA	JQA-EM0771	Research and development of innovative general-purpose technologies and materials
Overseas Production bases	ALPS ELECTRIC (IRELAND) LIMITED	April 9, 1997	SGS	E9607	Production of automotive electronics products
	ALPS ELECTRIC EUROPA GmbH Dortmund Plant	July 3, 2000	DNV	CERT-09198-2000-AE-ESN-TGA	Production of electronics components
	ALPS ELECTRIC (MALAYSIA) SDN. BHD. Jengka Plant	September 12, 2000	SGS	E18500	Production of electronics components
	ALPS ELECTRIC KOREA CO., LTD.	June 18, 2001	BVQI	83876	Production of electronics components
	ALCOM ELECTRONICS DE MEXICO, S.A. de C.V.	December 6, 2001	LRQA	112623	Production of automotive electronics products
	WUXI ALPS ELECTRONICS CO., LTD.	March 20, 2002	CQC	09-2002-0233	Production of mechatronic components and magnetic heads for data recording
	DALIAN ALPS ELECTRONICS CO., LTD.	June 14, 2002	MIC	1608	Production of electronics components
	ALPS ELECTRIC (MALAYSIA) SDN. BHD. NILAI PLANT	August 12, 2002	SGS	E56383	Production of electronics components
	ALPS ELECTRIC CZECH, s.r.o.	January 15, 2003	CQS	CZ-9/2003	Production of electronics components

Note: JQA: Japan Quality Assurance Organization, SGS: SGS Yarsley International Certification Services Limited, DNV: DNV Zertifizierung und Umweltgutachter GmbH, BVQI: Bureau Veritas Quality International, LRQA: Lloyd's Register Quality Assurance, CQC: China Quality Certification Centre, MIC: Moody International Certification Limited, CQS: Association for Quality System Certification



## CONSOLIDATED SUBSIDIARIES

### ALPINE

Established in 1967, ALPINE Electronics, Inc. is a mobile electronics manufacturer with core businesses in car audio and visual devices and such IT devices as car navigation systems.

The digitization of automotive electronics has gained momentum in the industry in recent years. In car audio equipment, market scale is growing considerably as demand grows for CD products, and sophisticated products that integrate information communication devices with audiovisual equipment emerge on the market.

During the fiscal year under review, in car audio products, ALPINE worked to expand sales with the introduction of devices for the aftermarket, featuring large-display high-quality audio CD players with MP3 functions, as well as D.D. Linear speakers and power amplifiers compatible with the newest generation of digital sound. In this way, ALPINE continually strives to make its name synonymous with superior sound quality. For automobile manufacturers, we began supplying 1 DIN in-dash 6-CD changers.

In information and communication equipment operations, the company introduced to the aftermarket in Japan DVD-type and high-precision HDD-type car navigation systems that excel in cost performance. At the same time, ALPINE increased sales to automobile manufacturers while raising the sales ratio of products that incorporate car navigation systems and car audiovisual equipment.

In North America, our DVD-type car navigation systems for automobile manufacturers were ranked number one in customer satisfaction.

The operating environment is becoming more challenging with intensified competition in terms of price and new product development, compounded by requests from automobile manufacturers for even higher quality products. In an aim to strengthen global competitiveness, ALPINE has built Taicang Alpine Electronics Co., Ltd., its third manufacturing base in China, and began expanding its Alpine Dalian Technology Development Center.

Over the long term, ALPINE will continue to reinforce its global structure for sales, production and development in Japan, the United States, Europe and Asia to strengthen its business structure and to enhance consolidated earnings. On the sales front, the company is making efforts to increase customer satisfaction by proactively proposing technologies and shortening service response times. In production, ALPINE is striving to supply products that flexibly meet local demand, and to increase local procurement. In development, strengthening



the software development capabilities for digital products is becoming an urgent issue, and the company aims to expand its software development bases in China.

This year marks the 25th anniversary of the ALPINE brand name. The company is aggressively promoting its brand in the aftermarket and is constantly working to further heighten its brand image. At the same time, ALPINE is making every effort to create attractive products that satisfy customer needs and to further elevate the Alpine brand name

### ALPS LOGISTICS

Established in 1964, ALPS Logistics Co., Ltd. is an integrated logistics company specializing in electronic-components freight handling. The company provides high-quality logistics services, based on the concept of supply chain management

(SCM), to customers mainly in the electronic components and electronics equipment industries through a global network of expanding distribution bases.

In the consumer logistics field, against a backdrop of growing outsourcing demand and logistics restructuring by customers to meet changes in consumer needs, ALPS Logistics offers services based on its ever-improving bases, logistics processes and transportation technologies.

In the fiscal year under review, to better meet the global needs of its customers, ALPS Logistics promoted independent operations in its forwarding business, and worked to expand its network of bases, including starting operations of the Dalian Branch of Tianjin Teda International Warehousing & Transportation Co., Ltd., completing a storage facility for Alps Logistics (Guang Dong) Co., Ltd., and establishing ALPS Logistics (USA) Inc.

As manufacturers continue to accelerate their shift of production to China, the center of logistics and distribution is expected to shift there as well. Needs for streamlined distribution are increasing based on the SCM concept, which promises reduced inventories, shortened lead times and lower distribution costs. Under such operating conditions for the distribution of electronic components, ALPS Logistics aims to create a robust network of distribution bases centered on Japan and China-the primary production and consumption regions for electronic components-to provide full-fledged global distribution services in line with customer needs. The company aims to strengthen its global business foundation by providing high-quality distribution services and developing logistics products in tune with customer needs while continually making improvements and increasing efficiency in its global operations.



# SIX-YEAR FINANCIAL SUMMARY

YEARS ENDED MARCH 31, 2003, 2002, 2001, 2000, 1999 AND 1998

	Millions of yen, except per share data					
	2003	2002	2001	2000	1999	1998
<b>For the year:</b>						
Net sales	¥601,816	¥540,268	¥573,064	¥546,941	¥554,446	¥505,134
(Overseas sales)	439,387	382,252	373,883	338,136	346,115	314,312
Cost of sales	477,995	451,210	476,910	449,456	440,619	403,584
SG&A expenses	82,008	75,809	71,600	73,614	76,488	75,952
Operating income	41,813	13,249	24,554	23,871	37,339	25,598
Income (loss) before income taxes	35,153	8,695	24,931	(10,133)	24,624	17,131
Income taxes	12,535	3,415	4,210	8,351	12,237	9,586
Net income (loss)	17,513	1,902	18,111	(20,611)	9,677	5,654
Cash flows (*)	45,466	33,197	46,860	11,467	37,379	28,338
Amounts per share of common stock:						
Net income (loss)	¥96.27	¥ 10.53	¥ 100.21	¥(114.41)	¥ 54.02	¥ 31.56
Cash dividends applicable to the year	12.00	5.00	12.00	10.00	12.00	10.00
<b>At the year end:</b>						
Current assets	¥298,845	¥293,636	¥289,283	¥308,258	¥280,405	¥313,428
Current liabilities	202,764	190,878	230,288	223,033	200,682	224,615
Working capital	96,081	102,758	58,995	85,225	79,723	88,813
Long-term debt due after one year	62,415	87,851	54,789	108,818	115,885	101,752
Stockholders' equity	148,881	137,513	131,901	122,485	143,106	135,401
Total assets	480,914	484,831	479,032	499,836	499,639	497,904
<b>Sales by product category:</b>						
Electronic components:	¥348,688	¥317,342	¥367,595	¥357,667	¥365,639	¥331,169
	57.9	58.7	64.2	65.4	66.0	65.6
Components	69,667	68,090 (**)	99,516	92,018	88,205	88,599
	11.6	12.6	17.4	16.8	15.9	17.5
Magnetic devices	83,317	46,288	54,783	63,583	63,619	45,281
	13.8	8.6	9.5	11.6	11.5	9.0
Communications	50,892	65,101	89,737	81,427	83,041	84,155
	8.5	12.0	15.7	14.9	15.0	16.7
Peripheral products	76,596	75,826 (**)	73,711	78,522	95,315	84,824
	12.7	14.0	12.9	14.4	17.2	16.8
Automotive electronics	68,216	62,037	49,848	42,117	35,459	28,310
	11.3	11.5	8.7	7.7	6.4	5.6
Audio equipment	221,439	194,845	179,663	168,833	174,359	165,727
	36.8	36.1	31.3	30.9	31.4	32.8
Logistics and others	31,689	28,081	25,806	20,441	14,448	8,238
	5.3	5.2	4.5	3.7	2.6	1.6
Total	¥601,816	¥540,268	¥573,064	¥546,941	¥554,446	¥505,134
Percentage of sales	100.0	100.0	100.0	100.0	100.0	100.0
<b>Sales by destination:</b>						
Japan	¥197,989	¥195,587	¥199,181	¥208,805	¥208,331	¥190,822
	32.9	36.2	34.8	38.2	37.6	37.8
North America	136,833	133,446	129,880	118,671	115,441	97,132
	22.8	24.7	22.7	21.7	20.8	19.2
Europe	133,737	121,170	112,569	110,445	113,637	95,051
	22.2	22.4	19.6	20.2	20.5	18.8
Asia	131,309	87,847	124,436	106,072	110,120	113,038
	21.8	16.3	21.7	19.4	19.9	22.4
Others	1,948	2,218	6,998	2,948	6,917	9,091
	0.3	0.4	1.2	0.5	1.2	1.8
Total	¥601,816	¥540,268	¥573,064	¥546,941	¥554,446	¥505,134
Percentage of sales	100.0	100.0	100.0	100.0	100.0	100.0

\*"Cash flows" is calculated by subtracting "cash dividends paid" and "bonuses to directors" from the total of "net income (loss)" and "depreciation and amortization".

\*\*These are results of recategorization in which the Company reclassified the net sales of the mechatronic device sub-segment and of the peripheral products sub-segment for the year ended March 31, 2002.

# FINANCIAL REVIEW

## ANALYSIS OF OPERATIONS

### NET SALES AND OPERATING INCOME

In fiscal 2003, ended March 31, 2003, the Company focused on stimulating demand by introducing new products into growth markets within the electronics industry. As a result, consolidated net sales rose 11.4% to ¥601,816 million (US\$5,006.8 million). Operating income more than tripled to ¥41,813 million (US\$347.9 million). The ratio of operating income to net sales increased 4.5 percentage points to 6.9%, owing primarily to higher income in all business segments.

#### 1. Electronic Components

In the electronic components segment, net sales increased 9.9% to ¥348,688 million (US\$2,900.9 million), driven mainly by higher demand for magnetic devices and automotive electronics, which offset a downturn in communications. Operating income was ¥23,929 million (US\$199.1 million), compared with ¥2,036 million in the same period last year.

##### Components

Sales of potentiometers and switches were firm, owing to robust demand for game-related devices and a recovery in the audiovisual market in the first half. Sales of switches and sensors for automobile markets were also favorable. As a result, sales edged up 2.3% to ¥69,667 million (US\$579.6 million) in the components category.

##### Magnetic Devices

Sales of magnetic heads for VCRs and other consumer electronics fell due to lower prices and volume. However, demand for GMR heads for HDDs expanded with the addition of new 60-80 GB/PL products. As a result, sales of the magnetic devices category soared 80.0% to ¥83,317 million (US\$693.2 million).

#### Communications

Sales declined in communications owing to contracting business scale in transceiver units for CDMA and a decline in usage of VCOs in the mobile phone market. Consequently, sales in the communications category dropped 21.8% to ¥50,892 million (US\$423.4 million).

#### Peripheral Products

Despite firm demand for color STN-LCDs for mobile phones overseas and low-profile designed control panels for digital still cameras, sales were largely unchanged from the previous fiscal year due to a fall in market prices for floppy disk drives. Input devices for laptop PCs and amusement equipment maintained sales on par with the previous fiscal year, despite price declines. In aggregate, sales in the peripheral products category rose 1.0% to ¥76,596 million (US\$637.2 million).

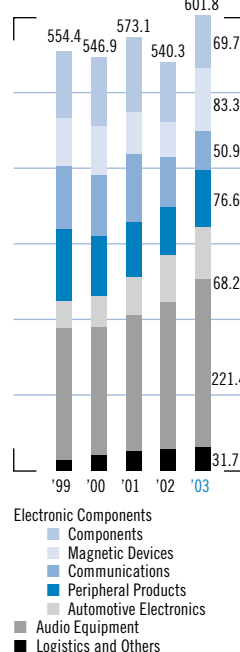
#### Automotive Electronics

Sales in automotive electronics increased as new products including passive keyless entry systems and the Haptic Commander™ contributed to results. Moreover, demand for door switch modules, clock springs for air bags and steering modules grew in Europe and the United States. In aggregate, sales for this category grew 10.0% to ¥68,216 million (US\$567.5 million).

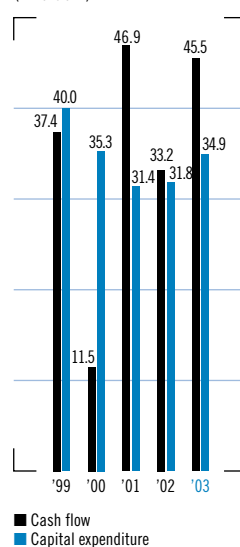
#### 2. Audio Equipment

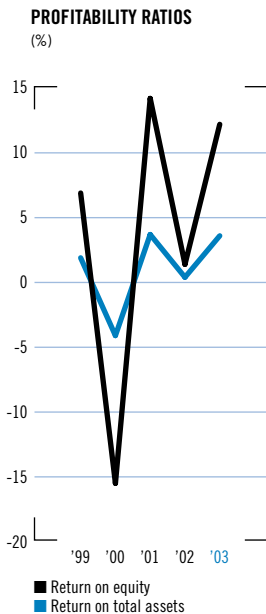
ALPINE concentrated efforts on operations in mobile multimedia, for which it expects market scale to expand. Sales increased owing to strong demand for CD car audio systems in the OEM market and aftermarket in Europe and the United States, and growth in sales of audiovisual car navigation systems to automobile manufacturers. In aggregate, net sales for the audio equipment segment rose 13.6% to ¥221,439 million (US\$1,842.3 million), and operating income climbed 75.3% to ¥12,307 million (US\$102.4 million).

SALES BY PRODUCT CATEGORY  
(Billions of ¥)

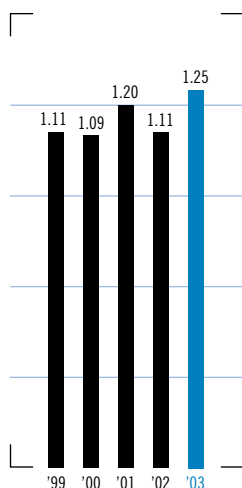


CASH FLOW AND CAPITAL EXPENDITURE  
(Billions of ¥)





**ASSET TURNOVER**  
(Times)



### 3. Logistics and Others

The volume of freight handled for electronic components remained in a slump. However, ALPS LOGISTICS was able to increase sales in logistics operations by improving business efficiency and bolstering its network of overseas bases, including the establishment of new bases and expansion of existing facilities in China. In aggregate, net sales of logistics and others rose 12.8% to ¥31,689 million (US\$263.6 million), and operating income surged 38.3% to ¥4,677 million (US\$38.9 million).

#### COSTS AND EXPENSES

Cost of sales was ¥477,995 million (US\$3,976.7 million), and the cost of sales ratio decreased 4.1 percentage points to 79.4%. Selling, general and administrative (SG&A) expenses increased 8.2% to ¥82,008 million (US\$682.3 million) to represent 13.6% of net sales, 0.4 percentage point lower than in the previous fiscal year. R&D expenses included in the above increased 11.7% to ¥29,457 million (US\$245.1 million), representing 4.9% of net sales.

#### OTHER INCOME (EXPENSES)

Net other expenses increased 46.2% to ¥6,660 million (US\$55.4 million) compared with the previous fiscal year. The main reason behind this was an increase in other, net, in other expenses to ¥5,666 million (US\$47.1 million), despite a decrease in interest expense. Net other expenses resulted from exchange losses, net, of ¥4,305 million (US\$35.8 million) compared with exchange gains, net, of ¥1,970 million in the previous fiscal year, and the absence of a lawsuit settlement involving Princeton bonds of ¥6,505 million recorded in the previous fiscal year, despite the drop-off of restructuring charges of ¥9,433 million. (See Note 7 to the consolidated financial statements for more details).

#### NET INCOME

Income before income taxes was ¥35,153

million (US\$292.5 million) compared with ¥8,695 million in the previous fiscal year, and income taxes increased to ¥12,535 million (US\$104.3 million) from ¥3,415 million in the same period last year. As a result, net income of ¥17,513 million (US\$145.7 million) was posted compared with ¥1,902 million in the previous fiscal year. Net income per share was ¥96.27 (US\$0.80) compared with ¥10.53 in the same period last year.

#### FINANCIAL CONDITION AND LIQUIDITY

##### FINANCIAL CONDITION

Total assets were ¥480,914 million (US\$4,000.9 million). Total current assets increased ¥5,209 million to ¥298,845 million (US\$2,486.2 million). Notes and accounts receivable, trade, advanced ¥5,242 million to ¥101,959 million (US\$848.2 million). Inventories rose ¥2,447 million to ¥82,265 million (US\$684.4 million), owing to an increase of ¥2,971 million in finished products. Deferred income taxes grew ¥7,373 million to ¥17,305 million (US\$144.0 million), and other current assets declined ¥8,648 million to ¥22,076 million (US\$183.7 million). Property, plant and equipment of ¥138,654 million (US\$1,153.5 million) was largely unchanged from the previous fiscal year. Total investments and advances fell ¥3,815 million to ¥22,408 million (US\$186.4 million), owing mainly to a ¥4,131 million decrease in investment securities, other, to ¥10,244 million (US\$85.2 million).

Total current liabilities increased ¥11,886 million to ¥202,764 million (US\$1,686.9 million) due to a rise of ¥9,542 million to ¥50,417 million (US\$419.4 million) in bank loans, an advance of ¥5,776 million to ¥28,890 million (US\$240.3 million) in long-term debt due within one year, and an increase of ¥4,156 million to ¥33,251 million (US\$276.6 million) in accrued expenses, offsetting a drop of ¥12,735 million to ¥11,192 million (US\$93.1 million) in other current liabilities.

Total stockholders' equity grew ¥11,368 million to ¥148,881 million (US\$1,238.6 million) owing to a rise in retained earnings of ¥15,465 million, despite an increase in the repositioning of foreign currency translation adjustments of ¥2,575 million.

### CAPITAL EXPENDITURES

During the fiscal year under review, capital expenditures amounted to ¥34,864 million (US\$290.0 million), an increase of 9.5% from a year earlier. The Electronic Components segment continued to account for approximately two-thirds of total capital expenditures, followed in order by the Audio Equipment and Logistics and Others segments.

### CASH FLOWS

In the fiscal year under review, net cash provided by operating activities totaled ¥50,931 million (US\$423.7 million) owing to the absence of restructuring costs, an increase in notes and accounts payable, an increase in inventories and lower interest expense.

Net cash used in investment activities was ¥34,136 million (US\$284.0 million). Free cash flow was consequently ¥16,795 million (US\$139.7 million).

Net cash used in financing activities totaled ¥15,405 million (US\$128.2 million). Primary sources of cash were a net increase in short-term borrowings of ¥7,421 million (US\$61.7 million), and proceeds from issuance of long-term debt of ¥8,693 million (US\$72.3 million), while main uses of cash were for the repayment of long-term debt of ¥28,202 million (US\$234.6 million). In aggregate, the net decrease in cash and cash equivalents was ¥528 million (US\$4.4 million), and cash and cash equivalents at end of year were ¥76,080 million (US\$632.9 million). In the current fiscal year, ALPS aims to pursue a cash-flow-centered management style, as well as steadily reduce interest-bearing debt.

### FINANCIAL INDICES

Return on equity (ROE) was 12.2% and return on assets (ROA) was 3.6%. Equity per share of common stock advanced ¥760.96 to ¥824.17 (US\$6.86). Asset turnover was 1.25 times, and interest coverage was 21.7 times, both at their highest levels in the past five years.

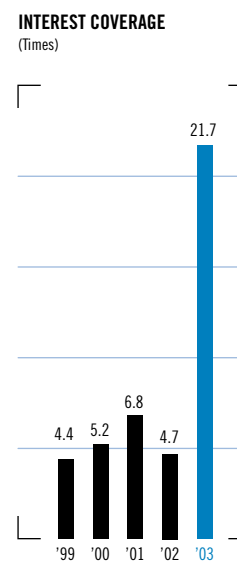
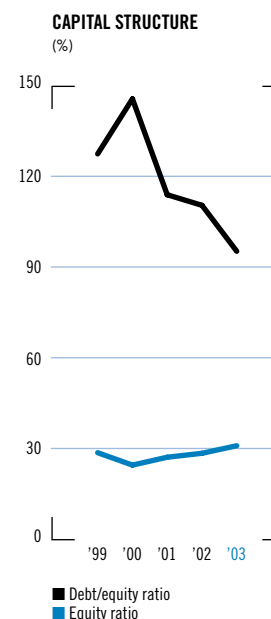
### DIVIDENDS

Management has decided to pay a year-end dividend of ¥6 per share. Combined with the interim cash dividend of ¥6 per share, cash dividends applicable to the fiscal year under review total ¥12 per share (US\$0.10), compared with ¥5 per share in fiscal 2002.

### SUBSEQUENT EVENTS

On April 15, 2003, the Company received approval to transfer future retirement benefit obligations managed on behalf of the government. Generally accepted accounting principles in Japan require a company to account for the transfer of obligations management on behalf of the government, either upon receipt of approval to transfer the future retirement benefit obligations or on the date of return of retirement benefit obligations. Had the Company accounted for the transfer of future retirement benefit obligations upon receipt of approval, a gain of ¥8,697 million (US\$72.4 million) would have been recorded on April 15, 2003.

On June 9, 2003, the Company completed an offering of ¥30,000 million (US\$249.6 million) in zero coupon convertible bonds due in 2010. The bonds were sold at a premium of ¥450 million (US\$3.7 million), which will be amortized to income using the straight-line method over the term of the bonds. ALPS plans to use the net proceeds from the bonds for the repayment of outstanding long-term debt, which will enable reductions in interest payments and lead to a stronger financial position. (See Note 16 to consolidated financial statements for more details.)



**CONSOLIDATED BALANCE SHEETS**

MARCH 31, 2003 AND 2002

ASSETS	Millions of yen		Thousands of U.S. dollars (Note 1)
	2003	2002	2003
Current assets:			
Cash and time deposits	¥ 76,757	¥ 77,252	\$ 638,577
Investment securities (Note 3)	164	152	1,364
Notes and accounts receivable:			
Unconsolidated subsidiaries and affiliated companies	192	318	1,597
Trade	101,959	96,717	848,245
Allowance for doubtful accounts	(1,873)	(1,277)	(15,582)
Inventories (Note 4)	82,265	79,818	684,401
Deferred income taxes (Note 9)	17,305	9,932	143,968
Other current assets	22,076	30,724	183,661
Total current assets	298,845	293,636	2,486,231
Property, plant and equipment (Note 5):			
Land	30,322	30,203	252,263
Buildings and structures	107,239	106,875	892,171
Machinery and equipment	278,754	271,959	2,319,085
Construction in progress	3,481	3,042	28,960
	419,796	412,079	3,492,479
Less accumulated depreciation	(281,142)	(273,695)	(2,338,952)
	138,654	138,384	1,153,527
Investments and advances:			
Investments in and advances to unconsolidated subsidiaries and affiliated companies	7,833	8,148	65,166
Investment securities, other (Note 3)	10,244	14,375	85,225
Other investments	4,331	3,700	36,032
Total investments and advances	22,408	26,223	186,423
Deferred income taxes (Note 9)	7,169	15,287	59,642
Deferred income taxes on land revaluation (Note 9 and 10)	564	582	4,692
Other assets	13,274	10,719	110,433
	¥ 480,914	¥ 484,831	\$ 4,000,948

See accompanying notes.



LIABILITIES AND STOCKHOLDERS' EQUITY	Millions of yen		Thousands of U.S. dollars (Note 1)
	2003	2002	2003
Current liabilities:			
Bank loans (Note 5)	¥ 50,417	¥ 40,875	\$ 419,443
Long-term debt due within one year (Note 5)	28,890	23,114	240,349
Notes and accounts payable:			
Unconsolidated subsidiaries and affiliated companies	181	164	1,506
Trade	70,695	68,926	588,145
Accrued income taxes	6,205	4,476	51,622
Accrued expenses	33,251	29,095	276,631
Deferred income taxes (Note 9)	1,933	301	16,082
Other current liabilities	11,192	23,927	93,111
Total current liabilities	202,764	190,878	1,686,889
Long-term debt due after one year (Note 5)	62,415	87,851	519,260
Employees' severance and retirement benefits (Note 8)	12,401	13,069	103,170
Deferred income taxes (Note 9)	1,723	2,745	14,334
Other long-term liabilities	2,396	3,661	19,934
Minority interests	50,334	49,114	418,752
Contingent liabilities (Note 11)			
Stockholders' equity (Note 6):			
Common stock:			
Authorized—500,000,000 shares			
Issued—180,727,015 shares in 2003 and 2002	22,913	22,913	190,624
Additional paid-in capital	44,876	44,876	373,344
Retained earnings	88,035	72,570	732,404
Land revaluation reserve (Note 10)	(387)	(378)	(3,220)
Unrealized gains on investment securities	1,807	3,005	15,033
Foreign currency translation adjustments	(8,031)	(5,456)	(66,814)
	149,213	137,530	1,241,371
Less treasury stock, at cost—234,366 shares in 2003; 16,863 shares in 2002	(332)	(17)	(2,762)
Total stockholders' equity	148,881	137,513	1,238,609
	¥ 480,914	¥ 484,831	\$ 4,000,948



**CONSOLIDATED STATEMENTS OF INCOME**

YEARS ENDED MARCH 31, 2003, 2002 AND 2001

	Millions of yen			Thousands of U.S. dollars (Note 1)
	2003	2002	2001	2003
Net sales (Note 15)	¥ 601,816	¥540,268	¥573,064	\$ 5,006,789
Costs and expenses (Note 15):				
Cost of sales	477,995	451,210	476,910	3,976,664
Selling, general and administrative	82,008	75,809	71,600	682,263
	560,003	527,019	548,510	4,658,927
Operating income (Note 15)	41,813	13,249	24,554	347,862
Other income (expenses):				
Interest and dividend income	813	1,193	1,717	6,764
Interest expense	(1,962)	(3,090)	(3,851)	(16,323)
Equity in earnings of affiliated companies	155	12	277	1,290
Other, net (Note 7)	(5,666)	(2,669)	2,234	(47,139)
	(6,660)	(4,554)	377	(55,408)
Income before income taxes	35,153	8,695	24,931	292,454
Income taxes (Note 9):				
Current	10,348	6,590	9,592	86,090
Deferred	2,187	(3,175)	(5,382)	18,195
	12,535	3,415	4,210	104,285
Income before minority interests	22,618	5,280	20,721	188,169
Minority interests in income of consolidated subsidiaries	(5,105)	(3,378)	(2,610)	(42,470)
Net income	¥ 17,513	¥ 1,902	¥ 18,111	\$ 145,699

	Yen			U.S. dollars (Note 1)
	2003	2002	2001	2003
Amounts per share of common stock:				
Net income	¥96.27	¥10.53	¥100.21	\$0.80
Diluted net income	—	—	93.12	—
Cash dividends applicable to the year	12.00	5.00	12.00	0.10

See accompanying notes.

# CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

YEARS ENDED MARCH 31, 2003, 2002 AND 2001

	Millions of yen						
	Shares of common stock	Common stock	Additional paid-in capital	Retained earnings	Land revaluation reserve	Unrealized gains on investment securities	Foreign currency translation adjustments
<b>Balance at March 31, 2000</b>	180,724,743	22,911	44,874	54,702	—	—	—
Increase due to inclusion of consolidated subsidiaries				851			
Net income				18,111			
Cash dividends paid (¥16.00 per share)				(2,892)			
Bonuses to directors				(53)			
Shares issued upon conversion of convertible debentures	2,272	2	2				
Change in unrealized gain on investment securities						2,664	
Change in foreign currency translation adjustments							(9,264)
Other				(6)			
<b>Balance at March 31, 2001</b>	180,727,015	22,913	44,876	70,713	—	2,664	(9,264)
Increase due to inclusion of consolidated subsidiaries				1,162			
Net income				1,902			
Cash dividends paid (¥6.00 per share)				(1,084)			
Bonuses to directors				(111)			
Revaluation of land					(378)		
Change in unrealized gain on investment securities						341	
Change in foreign currency translation adjustments							3,808
Other				(12)			
<b>Balance at March 31, 2002</b>	180,727,015	22,913	44,876	72,570	(378)	3,005	(5,456)
Net income				17,513			
Cash dividends paid (¥11.00 per share)				(1,987)			
Bonuses to directors				(59)			
Effect of tax rate change on land revaluation					(9)		
Change in unrealized gain on investment securities						(1,198)	
Change in foreign currency translation adjustments							(2,575)
Other				(2)			
<b>Balance at March 31, 2003</b>	180,727,015	¥22,913	¥44,876	¥ 88,035	¥(387)	¥1,807	¥(8,031)

	Thousands of U.S. dollars (Note 1)						
	Common stock	Additional paid-in capital	Retained earnings	Land revaluation reserve	Unrealized gains on investment securities	Foreign currency translation adjustments	
<b>Balance at March 31, 2002</b>	\$190,624	\$373,344	\$603,744	\$(3,145)	\$25,000	\$(45,391)	
Net income			145,699				
Cash dividends paid (\$0.09 per share)			(16,531)				
Bonuses to directors			(491)				
Revaluation of land				(75)			
Change in unrealized gain on investment securities					(9,967)		
Change in foreign currency translation adjustments						(21,423)	
Other			(17)				
<b>Balance at March 31, 2003</b>	\$190,624	\$373,344	\$732,404	\$(3,220)	\$15,033	\$(66,814)	

See accompanying notes.

# CONSOLIDATED STATEMENTS OF CASH FLOWS

YEARS ENDED MARCH 31, 2003, 2002 AND 2001

	Millions of yen			Thousands of U.S. dollars (Note 1)
	2003	2002	2001	2003
<b>Cash flows from operating activities:</b>				
Income before income taxes	¥ 35,153	¥ 8,695	¥ 24,931	\$ 292,454
Depreciation and amortization	29,999	32,490	31,694	249,576
Amortization of goodwill	(339)	(286)	(231)	(2,820)
Decrease in allowance for bad debts	(253)	(29)	(454)	(2,105)
(Decrease) increase in allowance for employees' severance and retirement benefits	(661)	1,771	5,430	(5,499)
(Decrease) increase in allowance for directors' retirement benefits	(600)	410	1,364	(4,992)
Decrease in allowance for guarantees	—	(481)	(3,102)	0
Interest and dividend income	(813)	(1,193)	(1,717)	(6,764)
Interest expense	1,962	3,090	3,851	16,323
Equity in earnings of affiliated companies	(155)	(12)	(277)	(1,290)
Gain on sale of property, plant and equipment	(462)	(205)	(80)	(3,844)
Loss on sale and disposal of property, plant and equipment	1,455	1,741	1,391	12,105
Gain on sale of investment securities, other	(119)	(299)	(1,388)	(990)
Write-offs of investment securities, other	538	467	161	4,476
Write-offs of specified money in trust ("Tokkin")	—	—	449	—
Restructuring cost	—	8,697	—	—
(Increase) decrease in notes and accounts receivable	(5,840)	12,499	(146)	(48,586)
(Increase) decrease in inventories	(3,075)	14,881	(14,830)	(25,582)
Increase (decrease) in notes and accounts payable	4,548	(14,236)	(20,150)	37,837
Other, net	(855)	(611)	374	(7,113)
Subtotal	60,483	67,389	27,270	503,186
Proceeds from interest and dividend income	1,013	1,755	2,350	8,428
Payments for interest expense	(2,059)	(3,101)	(4,191)	(17,130)
Payments for income taxes	(8,506)	(7,697)	(19,409)	(70,765)
Net cash provided by operating activities	50,931	58,346	6,020	423,719
<b>Cash flows from investing activities:</b>				
Proceeds from sale of investment securities	—	—	355	—
Payments for purchases of property, plant and equipment	(30,598)	(31,257)	(30,795)	(254,559)
Proceeds from sale of property, plant and equipment	934	556	662	7,770
Payments for purchases of intangible assets	(2,984)	(3,093)	(2,112)	(24,825)
Payments for purchases of investment securities, other	(430)	(777)	(734)	(3,577)
Proceeds from sale of investment securities, other	244	286	8,603	2,030
Proceeds from sale of specified money in trust ("Tokkin")	—	395	2,284	—
Payments for purchase of a consolidated subsidiary	(1,615)	—	—	(13,436)
Other	313	(1,003)	821	2,604
Net cash used in investing activities	(34,136)	(34,893)	(20,916)	(283,993)
<b>Cash flows from financing activities:</b>				
Net increase (decrease) in short-term borrowings	7,421	(1,617)	(8,393)	61,739
Proceeds from issuance of long-term debt	8,693	57,363	2,294	72,321
Repayment of long-term debt	(28,202)	(55,340)	(17,817)	(234,626)
Cash dividends paid	(1,987)	(1,084)	(2,892)	(16,531)
Cash dividends paid to minority interests	(837)	(723)	(564)	(6,963)
Other	(493)	(659)	146	(4,101)
Net cash used in financing activities	(15,405)	(2,060)	(27,226)	(128,161)
<b>Effect of exchange rate changes on cash and cash equivalents</b>	(1,918)	2,852	1,215	(15,957)
<b>Net increase (decrease) in cash and cash equivalents</b>	(528)	24,245	(40,907)	(4,392)
<b>Cash and cash equivalents at beginning of year</b>	76,608	51,488	91,052	637,337
<b>Increase in cash and cash equivalents resulting from inclusion of consolidation</b>	—	875	1,343	—
<b>Cash and cash equivalents at end of year (Note 13)</b>	¥ 76,080	¥ 76,608	¥ 51,488	\$ 632,945

See accompanying notes.

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

MARCH 31, 2003

## 1. BASIS OF CONSOLIDATED FINANCIAL STATEMENTS

Alps Electric Co., Ltd. (the "Company"), a Japanese corporation, and its domestic consolidated subsidiaries maintain their accounting records and prepare their financial statements in Japanese yen in conformity with accounting principles and practices generally accepted and applied in Japan, and its foreign consolidated subsidiaries in conformity with accounting principles generally accepted in their respective countries of domicile. The accompanying consolidated financial statements have been prepared from the accounts maintained by the Company and its domestic consolidated subsidiaries in accordance with the provisions set forth in the Commercial Code of Japan and in conformity with accounting principles and practices generally accepted in Japan, which may differ in certain material respects from accounting principles and practices generally accepted in countries and jurisdictions other than Japan.

In preparing the accompanying consolidated financial statements, certain reclassifications have been made to the consolidated financial statements issued domestically in order to present them in a form which is more familiar to readers outside Japan. In addition, the notes to the consolidated financial statements include information which is not required under accounting principles generally accepted in Japan but is presented herein as additional information.

The consolidated financial statements are stated in Japanese yen. The translation of Japanese yen amounts into U.S. dollar amounts is included solely for the convenience of readers outside Japan, at the prevailing exchange rate on March 31, 2003, which was ¥120.20 to U.S.\$1.00. The translation should not be construed as a representation that the Japanese yen could be converted into U.S. dollar at the above or any other rate of exchange.

## 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### (a) Consolidation

The consolidated financial statements include the accounts of the Company and substantially all of its subsidiaries (collectively, the "Companies"). All significant intercompany transactions and accounts are eliminated in consolidation.

### (b) Equity method

Investments in affiliated companies are accounted for by the equity method.

### (c) Cash equivalents

In preparing the consolidated statements of cash flows, the Company considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents.

### (d) Investment securities

The Company classifies investments in securities into three categories: trading, held-to-maturity or other securities. Trading securities are carried at fair value and held-to-maturity securities are carried at amortized cost. Marketable securities classified as other securities are carried at fair value with any changes in unrealized gain or loss, net of income taxes, included directly in stockholders' equity. Non-marketable securities classified as other securities are carried at cost. Cost of securities sold is determined by the moving average method.

### (e) Allowance for doubtful accounts

The allowance for doubtful accounts is provided at an amount sufficient to cover possible losses on collection. The allowance consists of the estimated uncollectible amounts with respect to specific receivables plus a percentage based on historical credit losses.

### (f) Inventories

Inventories held by the Company, its domestic consolidated subsidiaries and its foreign consolidated subsidiaries in Asia are principally stated at cost determined by the weighted average method. Inventories held by its foreign consolidated subsidiaries in the United States and Europe are stated at the lower of moving average cost or market.

### (g) Property, plant and equipment and depreciation

Property, plant and equipment is stated at cost. The Company and its domestic consolidated subsidiaries compute deprecia-

tion of property, plant and equipment, except for certain buildings, by the declining-balance method at rates based on their estimated useful lives, while its foreign consolidated subsidiaries apply the straight-line method over the estimated useful lives of the respective assets. Depreciation of buildings purchased after March 31, 1998 is computed by the straight-line method by the Company and its domestic consolidated subsidiaries.

The estimated useful lives are summarized as follows:

Buildings and structures	2–60 years
Machinery	2–15 years
Equipment	1–25 years

### (h) Foreign currency translation

#### Foreign currency transaction

All receivables and payables denominated in foreign currencies are translated into Japanese yen at the exchange rate prevailing at the balance sheet date.

#### Foreign currency financial statements

The assets and liabilities of the foreign consolidated subsidiaries are translated into Japanese yen at the rates of exchange prevailing at the balance sheet date, except for investments in and advances to unconsolidated subsidiaries and affiliated companies which are translated at their historical exchange rates. Revenue and expense accounts are translated at the average exchange rate prevailing during the year. Foreign currency translation adjustments are included in stockholders' equity and minority interests in consolidated subsidiaries.

### (i) Accrued employees' bonuses

Accrued employees' bonuses at the balance sheet dates are based on an estimate of the amounts to be paid as bonuses in the future by the Company and certain of its consolidated subsidiaries.

### (j) Employees' severance and retirement benefits

The Company and its domestic consolidated subsidiaries accrue employees' severance and retirement benefits at an amount calculated based on the retirement benefit obligation and the fair value of the plan assets as adjusted for the unrecognized net retirement benefit obligation at transition, unrecognized actuarial gain or loss and unrecognized prior

service cost. Actuarial gain or loss is amortized by the straight-line method over the average remaining years of service of the employees. Prior service cost is being amortized by the straight-line method over one or fifteen years which is the average remaining years of service of the employees.

**(k) Accrued directors' retirement benefits**

The Company and its domestic consolidated subsidiaries provide accrued directors' retirement benefits based on their internal corporate policy. During the year ended March 31, 2001, the Company and certain of its domestic consolidated subsidiaries changed their method of accounting for directors' retirement benefits from cash basis to accrual basis. The Company and certain of its domestic consolidated subsidiaries established an internal policy for directors' retirement benefits, under which the amount of the directors' retirement benefits will increase in proportion to the length of service of the directors. The Company believes this change provides a better matching of costs and revenues over the period of service and results in an improvement in the financial condition.

A portion of the accrued directors' retirement benefits relating to the current year was included in selling, general and administrative expenses. The corresponding portion for the year ended March 31, 2001 totaled ¥173 million. For the year ended March 31, 2001, the portion of the accrual related to prior years, which amounted to ¥1,011 million, was expensed and was included in other, net in the accompanying consolidated statements of income. The effect of this change was to decrease operating income and income before income taxes by ¥173 million and ¥1,184 million, respectively, for the year ended March 31, 2001.

**(l) Leases**

Finance leases, except for those leases for which the ownership of the leased assets is transferred to the lessees, are accounted for as operating leases.

**(m) Income taxes**

Deferred tax assets and liabilities are determined based on the financial statements and the tax bases of the assets and liabilities using the enacted tax rates in effect for the year in which the temporary differences are expected to reverse. Deferred tax assets are also recognized for the estimated future tax effects attributable to operating loss carryforwards. A valuation allowance is recorded to reduce deferred tax assets if it is more likely than not that some or all of the deferred tax assets will not be realized.

**(n) Bonuses to directors**

Bonuses to directors, which are subject to approval by the stockholders at the annual stockholders' meeting, are

accounted for as an appropriation of retained earnings.

**(o) Amounts per share of common stock**

Net income per share of common stock is computed based on the weighted average number of shares outstanding during the year.

Diluted net income per share of common stock is computed based on the weighted average number of shares of common stock and the contingent issuance of common stock upon the conversion of convertible debentures.

Effective April 1, 2002, the Company adopted a new accounting standard for earnings per share. If the new accounting standard were applied for the year ended March 31, 2002, net income per share for the year ended March 31, 2002 would have been ¥10.20.

Cash dividends per share of common stock reflect the actual amounts declared for each of the fiscal years ended March 31.

**(p) Derivative financial instruments**

In the normal course of business, the Company and certain of its consolidated subsidiaries enter into various derivative transactions to manage their exposure to risk arising from fluctuations in foreign currency exchange rates and interest rates. The Company and its domestic consolidated subsidiaries generally recognize all derivatives in the balance sheet at fair value.

**Forward foreign exchange contracts**

Changes in the fair value of forward foreign exchange contracts, currency swaps and currency options designated as hedges of recognized assets or liabilities are recognized in earnings. Changes in the fair value of these derivatives which are designated as hedge of forecasted transactions are deferred until the hedged transaction is recognized in earnings.

**Interest rate swap agreements**

In accordance with the accounting standards for financial instruments, interest rate swap agreements are not recognized at fair value if the agreements meet the exception criteria for the recognition of derivatives at fair value. The differential to be paid or received relating to the interest rate swap agreements is recognized as interest over the life of each of the agreements.

**(q) Reclassifications**

Certain prior year amounts have been reclassified to conform to the 2003 presentation. These changes had no impact on previously reported results of operations or stockholders' equity.

**3. INVESTMENT SECURITIES**

Marketable securities classified as other securities at March 31, 2003 and 2002 are summarized as follows:

	Millions of yen			Thousands of U.S. dollars		
	2003			2003		
	Cost	Fair value	Unrealized gains (losses)	Cost	Fair value	Unrealized gains (losses)
Securities for which fair value exceeds cost:						
(1) Equity securities	¥3,130	¥8,249	¥ 5,119	\$26,040	\$68,627	\$ 42,587
(2) Debt securities:						
Government bonds	7	7	0	58	58	0
Subtotal	3,137	8,256	5,119	26,098	68,685	42,587

	Millions of yen			Thousands of U.S. dollars		
	2003			2003		
	Cost	Fair value	Unrealized gains (losses)	Cost	Fair value	Unrealized gains (losses)
Securities for which cost exceeds fair value:						
(1) Equity securities	234	222	(12)	1,947	1,847	(100)
(2) Other	35	35	—	291	291	—
Subtotal	269	257	(12)	2,238	2,138	(100)
Total	¥3,406	¥8,513	¥ 5,107	\$28,336	\$70,823	\$ 42,487
				Millions of yen		
				2002		
				Cost	Fair value	Unrealized gains (losses)
Securities for which fair value exceeds cost:						
(1) Equity securities				¥3,184	¥12,100	¥8,916
(2) Debt securities:						
Government bonds				7	7	0
Corporate bonds				3	3	0
(3) Other				20	20	0
Subtotal				3,214	12,130	8,916
Securities for which cost exceeds fair value:						
(1) Equity securities				¥426	¥323	¥(103)
(2) Debt securities				—	—	—
Subtotal				426	323	(103)
Total				¥3,640	¥12,453	¥8,813

Proceeds from sales of securities classified as other securities totaled ¥244 million (\$2,030 thousand), ¥286 million and ¥7,771 million for the years ended March 31, 2003, 2002 and 2001, respectively. Gross realized gains and losses were ¥90 million (\$749 thousand) and ¥2 million (\$17 thousand), respectively, for the year ended March 31, 2003. Gross realized gains were ¥222 million for the year ended March 31, 2002, and gross realized gains and losses were ¥1,393 million and ¥55 million, respectively, for the year ended March 31, 2001.

Significant components of securities recorded at cost at March 31, 2003 and 2002 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2003	2002	2003
Other securities:			
Non-marketable equity securities	¥1,670	¥1,930	\$13,894
Government bonds	0	—	0
Domestic CDs	103	—	857
Other	122	144	1,015
Subsidiaries' and affiliates' stocks:			
Unconsolidated subsidiaries and affiliated companies	6,994	7,327	58,186
Total	¥8,889	¥9,401	\$73,952

The redemption schedule for securities classified as other securities at March 31, 2003 and 2002 is summarized as follows:

	Millions of yen			Thousands of U.S. dollars		
	2003			2003		
	Due within one year or less	Due after one year through five years	Due after five years or more	Due within one year or less	Due after one year through five years	Due after five years or more
Government bonds	¥ 7	¥ —	¥ —	\$ 58	\$ —	\$ —
Total	¥ 7	¥ —	¥ —	\$ 58	\$ —	\$ —
				Millions of yen		
				2002		
	Due within one year or less	Due after one year through five years	Due after five years or more			
Government bonds	¥ —	¥ 7	¥ —			
Corporate bonds	3	—	—			
Total	¥ 3	¥ 7	¥ —			

#### 4. INVENTORIES

Inventories at March 31, 2003 and 2002 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2003	2002	2003
Finished products	¥44,389	¥41,418	\$369,293
Work in process	20,622	21,311	171,564
Raw materials and supplies	17,254	17,089	143,544
	¥82,265	¥79,818	\$684,401

#### 5. BANK LOANS AND LONG-TERM DEBT

Bank loans consisted primarily of overdrafts with banks at interest rates ranging from 0.45% to 5.54% and 0.50% to 5.58% at March 31, 2003 and 2002, respectively.

Long-term debt at March 31, 2003 and 2002 was as follows:

	Millions of yen		Thousands of U.S. dollars
	2003	2002	2003
Loans principally from banks and insurance companies due through 2017 at interest rates ranging from 0.00% to 6.00% and 0.00% to 5.25% at March 31, 2003 and 2002, respectively	¥49,472	¥ 68,965	\$411,581
2.1% domestic bonds due 2003	20,000	20,000	166,389
1.07% domestic bonds due 2007	10,000	10,000	83,195
0.0% domestic convertible debentures bond of consolidated subsidiary due 2007	11,833	12,000	98,444
	91,305	110,965	759,609
Less amounts due within one year	28,890	23,114	240,349
	¥62,415	¥ 87,851	\$519,260

At March 31, 2003 and 2002, the following assets were pledged as collateral for bank loans and long-term debt:

	Millions of yen		Thousands of U.S. dollars
	2003	2002	2003
Property, plant and equipment, at book value	¥ 6,184	¥ 6,950	\$ 51,448
Shares of a consolidated subsidiary, at market value	—	4,675	—

The aggregate annual maturities of long-term debt subsequent to March 31, 2003 are summarized as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2004	¥28,890	\$240,349
2005	7,054	58,686
2006	13,158	109,467
2007	33,255	276,664
2008	7,727	64,284
2009 and thereafter	1,221	10,159
Total	¥91,305	\$759,609

#### 6. STOCKHOLDERS' EQUITY

On October 1, 2001, an amendment to the Commercial Code of Japan ("Code") became effective. The amendment eliminates the stated par value of the Company's outstanding shares which results in all outstanding shares having no par value as of October 1, 2001. The amendment also provides that share issuances after September 30, 2001 will be of shares with no par value. Before the amendment, the Company's shares had a par value of ¥50 per share.

Under the Code, at least 50% of the issue price of new shares is required to be designated as common stock. The portion which is not transferred to common stock is determined by resolution of the Board of Directors. Proceeds not transferred to common stock are credited to additional paid-in capital. The Code provides that an amount equal to at least

10% of the amount to be disbursed as a distribution of earnings be appropriated to the legal reserve until the total of such reserve and additional paid-in capital account equals 25% of the common stock account. The Code also provides that, to the extent that the sum of additional paid-in capital account and the legal reserve exceeds 25% of the common stock account, the amount of the excess (if any) is available for appropriations by resolution of the stockholders.

In accordance with the Code, the appropriation of retained earnings for the year ended March 31, 2003 will be proposed for approval at the annual general meeting of the stockholders to be held on June 27, 2003, and will subsequently be recorded in the Company's statutory books of account.



## 7. OTHER INCOME (EXPENSES)

The components of other, net, in the accompanying consolidated statements of income for the years ended March 31, 2003, 2002 and 2001 were as follows:

	Millions of yen			Thousands of U.S. dollars
	2003	2002	2001	2003
Losses on disposal of property, plant and equipment	¥(1,455)	¥(1,741)	¥(1,390)	\$(8,261)
Reversal of allowance for guarantees	—	481	3,102	—
Provision for allowance for doubtful accounts	1,041	379	458	8,661
Prior years' licensing royalty	(628)	358	—	(5,225)
Gains on sales of investment securities, other	119	222	1,337	990
Write-offs of investment securities, other	(538)	(467)	(161)	(4,476)
Write-offs of inventories	(445)	(358)	—	(3,702)
Directors' retirement benefits	(549)	—	—	(4,567)
Prior years' directors' retirement benefits	—	—	(1,073)	—
Exchange gains (losses), net	(4,305)	1,970	7,494	(35,815)
Amortization of net retirement benefit obligation at transition	—	—	(5,022)	—
Settlement of lawsuit	—	6,505	—	—
Restructuring charges	—	(9,433)	(973)	—
Other	1,094	(585)	(1,538)	(1,915)
	¥(5,666)	¥ (2,669)	¥2,234	\$(47,139)

## 8. EMPLOYEES' SEVERANCE AND RETIREMENT BENEFITS

The Company and its consolidated subsidiaries have defined benefit pension plans, i.e., Employees' Pension Fund plans ("EPFs"), comprising of substitutional portion related to the government-sponsored benefit and a corporate portion related to employer-sponsored benefit, tax-qualified pension plans and lump-sum retirement plans, covering substantially all employees. Under these defined benefit pension plans, employees are generally entitled to lump-sum payments and/or pension payments, the amounts of which are deter-

mined by reference to their basic salary, length of service, and the conditions under which termination occurs. Certain of the foreign consolidated subsidiaries have defined contribution plans.

The following table sets forth the funded and accrued status of the defined benefit pension plans, and the amounts recognized in the consolidated balance sheets at March 31, 2003 and 2002 for the Company and its consolidated subsidiaries:

	Millions of yen		Thousands of U.S. dollars
	2003	2002	2003
Retirement benefit obligation	¥(127,795)	¥(136,649)	\$(1,063,186)
Plan assets at fair value	67,713	85,195	563,336
Unfunded retirement benefit obligation	(60,082)	(51,454)	(499,850)
Unrecognized actuarial loss	47,864	43,471	398,203
Unrecognized prior service cost	(74)	(4,959)	(616)
Amounts recognized in the consolidated balance sheets, net	(12,292)	(12,942)	(102,263)
Prepaid pension cost	109	127	907
Employees' severance and retirement benefits	¥ (12,401)	¥ (13,069)	\$ (103,170)

Substitutional portion of EPFs related to the government-sponsored benefit has been included in the amounts shown in the above table. For the year ended March 31, 2002, the Company and certain of its consolidated subsidiaries amended their welfare pension plans to increase the benefit payment commencement age, resulting in the recognition of prior ser-

vice cost (a reduction of their obligation). Certain of the consolidated subsidiaries have adopted the conventional method in calculating their retirement benefit obligation as set forth in the accounting standard for retirement benefits.

The components of retirement benefit expenses for the years ended March 31, 2003, 2002 and 2001 were as follows:

	Millions of yen			Thousands of U.S. dollars
	2003	2002	2001	2003
Service cost	¥ 5,081	¥ 6,023	¥ 4,068	\$ 42,271
Interest cost	3,347	3,588	3,686	27,845
Expected return on plan assets	(2,121)	(2,626)	(3,335)	(17,646)
Amortization of net retirement obligation at transition	—	—	5,022	—
Amortization of actuarial loss	2,955	1,699	—	24,584
Amortization of prior service cost	(5,519)	(1,983)	—	(45,915)
Additional retirement allowances	17	5,702	—	141
Other	206	118	90	1,714
Total	¥ 3,966	¥ 12,521	¥ 9,531	\$ 32,994

The assumptions used in accounting for the pension plans for the years ended March 31, 2003, 2002 and 2001 were as follows:

	2003	2002	2001
Discount rates	2.5%	2.5% (3.0% at the beginning of the year)	3.0% (3.5% at the beginning of the year)
Expected return on plan assets	2.5%	3.0%	3.5%

## 9. INCOME TAXES

The Company is subject to a number of taxes in Japan based on income, which, in the aggregate, results in a statutory rate of approximately 41.5% for the years ended March 31, 2003, 2002 and 2001.

The following table summarizes the significant differences between the statutory tax rate and the Company's effective tax rates reflected in the consolidated statements of income for the years ended March 31, 2003, 2002 and 2001:

	2003	2002	2001
Statutory tax rate	41.5%	41.5%	41.5%
Change in valuation allowance	(3.3)	—	(25.0)
Losses on investments in unconsolidated subsidiaries and affiliated companies	—	—	(5.4)
Subsidiaries' net operating losses	—	5.4	3.3
Lower tax rate at foreign subsidiaries	(3.4)	(9.4)	(4.0)
Other	(2.5)	1.8	6.5
Effective tax rates	35.7%	39.3%	16.9%

The significant components of deferred tax assets and liabilities at March 31, 2003 and 2002 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2003	2002	2003
Deferred tax assets:			
Net operating loss carryforward	¥ 8,915	¥ 13,984	\$ 74,168
Employees' severance and retirement benefits	3,650	4,833	30,366
Elimination of unrealized gain	3,134	2,932	26,073
Write-offs of specified money in trust ("Tokkin")	2,380	2,618	19,800
Depreciation	3,172	2,676	26,389
Accrued employees' bonuses	2,006	1,768	16,689
Write-offs of investment securities	1,163	1,030	9,676
Allowance for guarantees	868	795	7,221
Land revaluation reserve	564	582	4,692
Foreign tax credit	915	—	7,612
Other	6,059	5,435	50,408
Total deferred tax assets	32,826	36,653	273,094
Valuation allowance	(4,758)	(6,717)	(39,584)
Net of deferred tax liabilities in the same tax jurisdiction	(3,030)	(4,135)	(25,208)
Deferred tax assets, net	25,038	25,801	208,302
Deferred tax liabilities:			
Unrealized gains on investment securities	2,078	3,710	17,288
Tax deductible reserve	864	1,315	7,188
Loss on investment in limited partnership	667	667	5,549
Accelerated depreciation of tangible fixed assets	262	249	2,180
Unrealized losses on consolidation	130	224	1,082
Unappropriated retained earnings of affiliated company	881	—	7,329
Revaluation of subsidiary on consolidation	640	—	5,324
Other	1,164	1,016	9,684
Total deferred tax liabilities	6,686	7,181	55,624
Net of deferred tax assets in the same tax jurisdiction	(3,030)	(4,135)	(25,208)
Net deferred tax liabilities	3,656	3,046	30,416
Net deferred tax assets	¥ 21,382	¥ 22,755	\$ 177,886

## 10. REVALUATION OF LAND

On March 31, 2002, a domestic consolidated subsidiary revalued its land held for business purposes in accordance with the "Law on Land Revaluation." The method followed for this land revaluation was determined in accordance with the "Enforcement Act Concerning Land Revaluation." Differences arising from the land revaluation have been accounted for as

land revaluation reserve under stockholders' equity, net of tax effect, and allocation to minority interests.

The difference between the carrying value of this land after the revaluation and its fair value as of March 31, 2003 was ¥246 million (\$2,047 thousand).

## 11. CONTINGENT LIABILITIES

The Company was contingently liable for trade accounts receivable transferred to banks in the amounts of ¥13,680 million (\$113,810 thousand) and ¥10,140 million at March 31, 2003 and 2002, respectively.

The Company and certain of its consolidated subsidiaries

were contingently liable as guarantors for loans of its affiliated companies, other companies and employees in the aggregate amount of ¥792 million (\$6,589 thousand) and ¥896 million at March 31, 2003 and 2002, respectively.

## 12. DERIVATIVE FINANCIAL INSTRUMENTS

The Company and certain of its consolidated subsidiaries have entered into forward foreign exchange contracts, currency swaps and currency options with banks to hedge transactions and balances denominated in foreign currencies. In addition, to hedge their exposure to fluctuations in interest rates, the Company and certain of its consolidated subsidiaries have entered into interest rate swap agreements to effectively change the floating rates on the principal balance of their debt to fixed interest rates.

These derivative transactions are utilized solely for hedging purposes under the Company's internal control rules and are subject to oversight by the Board of Directors. The Company does not anticipate any credit loss from nonperformance by the counterparties to the forward foreign exchange contracts and interest rate swap agreements.

The notional amounts and estimated fair value of the derivative instruments outstanding at March 31, 2003 and 2002 are summarized as follows:

	Millions of yen			Thousands of U.S. dollars		
	2003			2003		
	Notional	Fair value	Unrealized gains (losses)	Notional	Fair value	Unrealized gains (losses)
Forward foreign exchange contracts:						
Sell:						
U.S. dollars	¥20,430	¥20,640	¥ (210)	\$169,967	\$171,714	\$(1,747)
Euro	2,156	2,176	(20)	17,937	18,103	(166)
Buy:						
U.S. dollars	31	31	(0)	258	258	(0)
Yen	2	2	(0)	17	17	(0)
Foreign currency swaps:						
Receipt-Euro						
Payment-STG £	950	959	9	7,903	7,978	75
Receipt-Yen						
Payment-Euro	238	237	(1)	1,980	1,972	(8)

	Millions of yen		
	2002		
	Notional	Fair value	Unrealized gains (losses)
Forward foreign exchange contracts:			
Sell:			
U.S. dollars	¥15,927	¥16,053	¥(126)
Euro	777	777	0
STG £	55	55	(0)
Buy:			
U.S. dollars	281	281	(0)
Yen	93	92	1
Foreign currency swap:			
Receipt-U.S. dollars			
Payment-Brazilian real	83	68	(15)

Note: With regard to interest rate swap agreements, the notional amounts and the estimated fair value have been excluded since hedge accounting has been applied.

### 13. CASH AND CASH EQUIVALENTS

A reconciliation between cash and time deposits in the consolidated balance sheets, and cash and cash equivalents in the statements of cash flows at March 31, 2003 and 2002 is as follows:

	Millions of yen		Thousands of U.S. dollars
	2003	2002	2003
Cash and time deposits	¥76,757	¥77,252	\$638,577
Investment securities	164	152	1,364
Total	76,921	77,404	639,941
Less:			
Time deposits with a maturity of more than three months when purchased	(884)	796	7,354
Investment securities with a maturity within one year	(101)	—	840
Add:			
Repurchase agreement with period within three months	144	—	(1,198)
Cash and cash equivalents	¥76,080	¥76,608	\$632,945

#### Non-cash transactions

For the year ended March 31, 2001, common stock and additional paid-in capital of the Company increased by ¥2.5

million and ¥2.5 million, respectively, as a result of the conversion of debentures amounting to ¥5 million.

### 14. LEASES

As lessee:

The Company and certain of its consolidated subsidiaries lease certain machinery, vehicles, equipment, tools and other assets. These lease agreements have been accounted for as operating leases.

The following pro forma amounts represent the acquisition costs, accumulated depreciation and net book value of the leased assets at March 31, 2003 and 2002, which would have been reflected in the consolidated balance sheets if these agreements had been accounted for as financing leases:

	Millions of yen		Thousands of U.S. dollars
	2003	2002	2003
Acquisition costs of machinery and vehicles	¥2,564	¥3,901	\$21,331
Accumulated depreciation of machinery and vehicles	1,354	2,186	11,265
Net book value	¥1,210	¥1,715	\$10,066
Acquisition costs of equipment and tools	¥1,334	¥1,668	\$11,098
Accumulated depreciation of equipment and tools	734	1,131	6,106
Net book value	¥600	¥537	\$4,992
Acquisition costs of other assets	¥277	¥571	\$2,304
Accumulated depreciation of other assets	173	398	1,439
Net book value	¥104	¥173	\$865

Future minimum lease payments (including the interest portion thereon) subsequent to March 31, 2003 for finance leases accounted for as operating leases are summarized as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
	2003	2003
2004	¥683	\$5,682
2005 and thereafter	1,231	10,241
	¥1,914	\$15,923

Lease payments relating to finance leases accounted for as operating leases in the accompanying consolidated financial statements totaled ¥1,034 million (\$8,602), ¥1,343 million and ¥1,973 million for the years ended March 31, 2003, 2002 and 2001, respectively. The pro forma depreciation of the assets leased under finance leases accounted for as oper-

ating leases for the years ended March 31, 2003, 2002 and 2001 amounted to ¥1,034 million (\$8,602), ¥1,343 million and ¥1,973 million, respectively.

The Company's future minimum lease payments subsequent to March 31, 2003 under non-cancelable operating leases are summarized as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
	2003	2003
2004	¥693	\$5,765
2005 and thereafter	633	5,266
	¥1,326	\$11,032

**As lessor:**

A domestic subsidiary leases certain machinery, vehicles, equipment and tools.

The following amounts represent the acquisition costs, accumulated depreciation and the net book value of the leased assets under finance leases accounted for as operating leases at March 31, 2003 and 2002:

	Millions of yen		Thousands of U.S. dollars
	2003	2002	2003
Acquisition costs of machinery and vehicles	¥ 2,606	¥ 3,124	\$ 21,681
Accumulated depreciation of machinery and vehicles	1,944	2,269	16,173
Net book value	¥ 662	¥ 855	\$ 5,507
Acquisition costs of equipment and tools	¥ 798	¥ 1,591	\$ 6,639
Accumulated depreciation of equipment and tools	632	1,314	5,258
Net book value	¥ 166	¥ 277	\$ 1,381

The future minimum lease income subsequent to March 31, 2003 under finance leases accounted for as operating leases is summarized as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
	2003	2003
2004	¥ 277	\$ 2,304
2005 and thereafter	508	4,226
	¥ 785	\$ 6,530

Lease income, depreciation and interest portion of lease income on finance leases accounted for as operating leases for the years ended March 31, 2003, 2002 and 2001 were as follows:

	Millions of yen			Thousands of U.S. dollars
	2003	2002	2001	2003
Lease income	¥ 441	¥ 601	¥ 849	\$ 3,669
Depreciation	337	440	620	2,804
Interest portion of lease income	62	89	—	516

**15. SEGMENT INFORMATION****Business segments**

The Companies are primarily engaged in the manufacturing and sales of (1) electronic components, (2) audio equip-

ment, and (3) logistics and others. The business segment information of the Companies for the years ended March 31, 2003, 2002 and 2001 is summarized as follows:

Year ended March 31, 2003	Millions of yen				Consolidated
	Electronic components	Audio equipment	Logistics and others	Eliminations	
Net sales					
Outside customers	¥ 348,688	¥ 221,439	¥ 31,689	¥ —	¥ 601,816
Inter-segment sales and transfer	5,792	929	25,303	(32,024)	—
Total	354,480	222,368	56,992	(32,024)	601,816
Costs and expenses	330,551	210,061	52,315	(32,924)	560,003
Operating income	23,929	12,307	4,677	900	41,813
Identifiable assets	314,241	150,230	57,411	(40,968)	480,914
Depreciation and amortization	22,417	5,723	1,931	(72)	29,999
Capital expenditures	23,925	8,218	2,721	—	34,864

Year ended March 31, 2002	Millions of yen				Consolidated
	Electronic components	Audio equipment	Logistics and others	Eliminations	
Net sales					
Outside customers	¥ 317,342	¥ 194,845	¥ 28,081	¥ —	¥ 540,268
Inter-segment sales and transfer	5,838	1,247	21,613	(28,698)	—
Total	323,180	196,092	49,694	(28,698)	540,268
Costs and expenses	321,144	189,070	46,313	(29,508)	527,019
Operating income	2,036	7,022	3,381	810	13,249
Identifiable assets	313,658	147,412	53,069	(29,308)	484,831
Depreciation and amortization	25,132	5,552	1,878	(72)	32,490
Capital expenditures	22,059	6,808	2,965	(0)	31,832

Year ended March 31, 2001	Millions of yen				
	Electronic components	Audio equipment	Logistics and others	Eliminations	Consolidated
Net sales					
Outside customers	¥367,595	¥179,663	¥25,806	¥ —	¥573,064
Inter-segment sales and transfers	7,187	1,952	23,727	(32,866)	—
Total	374,782	181,615	49,533	(32,866)	573,064
Costs and expenses	358,732	177,170	45,868	(33,260)	548,510
Operating income	16,050	4,445	3,665	394	24,554
Identifiable assets	353,698	127,772	50,528	(52,966)	479,032
Depreciation and amortization	24,442	5,385	1,939	(72)	31,694
Capital expenditures	23,886	6,307	1,582	(372)	31,403

Year ended March 31, 2003	Thousands of U.S. dollars				
	Electronic components	Audio equipment	Logistics and others	Eliminations	Consolidated
Net sales					
Outside customers	\$2,900,899	\$1,842,254	\$263,636	\$ —	\$5,006,789
Inter-segment sales and transfers	48,186	7,730	210,507	(266,423)	—
Total	2,949,085	1,849,984	474,143	(266,423)	5,006,789
Costs and expenses	2,750,008	1,747,596	435,233	(273,910)	4,658,927
Operating income	199,077	102,388	38,910	7,487	347,862
Identifiable assets	2,614,318	1,249,834	477,629	(340,833)	4,000,948
Depreciation and amortization	186,498	47,612	16,065	(599)	249,576
Capital expenditures	199,043	68,369	22,637	—	290,049

The effects of the changes in accounting policies and procedures on the business segment information are as follows:

In connection with Note 2 (k), the change in accounting for directors' retirement benefits decreased operating income in the "Audio products" and "Logistics and others" by segments ¥167 million and ¥6 million, respectively, for the year ended March 31, 2001.

### Geographical segments

The geographic segment information of the Companies for the years ended March 31, 2002, 2001 and 2000 is summarized as follows:

Year ended March 31, 2003	Millions of yen						
	Japan	North America	Europe	Asia	Other areas	Eliminations	Consolidated
Net sales							
Outside customers	¥197,989	¥136,833	¥133,737	¥131,309	¥1,948	¥ —	¥601,816
Inter-segment sales and transfers	242,317	968	23,493	93,153	7	(359,938)	—
Total	440,306	137,801	157,230	224,462	1,955	(359,938)	601,816
Costs and expenses	399,433	134,016	156,118	217,845	1,879	(349,288)	560,003
Operating income	40,873	3,785	1,112	6,617	76	(10,650)	41,813
Identifiable assets	391,297	49,198	56,002	74,481	1,180	(91,244)	480,914

Year ended March 31, 2002	Millions of yen						
	Japan	North America	Europe	Asia	Other areas	Eliminations	Consolidated
Net sales							
Outside customers	¥195,587	¥133,446	¥121,170	¥87,847	¥2,218	¥ —	¥540,268
Inter-segment sales and transfers	223,154	822	19,200	82,013	7	(325,196)	—
Total	418,741	134,268	140,370	169,860	2,225	(325,196)	540,268
Costs and expenses	406,534	132,590	139,848	164,309	2,145	(318,407)	527,019
Operating income	12,207	1,678	522	5,551	80	(6,789)	13,249
Identifiable assets	379,818	51,733	53,599	89,019	1,385	(90,723)	484,831

Year ended March 31, 2001	Millions of yen						
	Japan	North America	Europe	Asia	Other areas	Eliminations	Consolidated
Net sales							
Outside customers	¥258,743	¥131,889	¥107,133	¥ 74,405	¥894	¥ —	¥573,064
Inter-segment sales and transfers	224,031	1,678	10,031	78,530	0	(314,270)	—
Total	482,774	133,567	117,164	152,935	894	(314,270)	573,064
Costs and expenses	455,961	133,404	116,661	149,204	931	(307,651)	548,510
Operating income (loss)	26,813	163	503	3,731	(37)	(6,619)	24,554
Identifiable assets	408,169	51,769	51,270	75,123	362	(107,661)	479,032



Year ended March 31, 2003	Thousands of U.S. dollars						
	Japan	North America	Europe	Asia	Other areas	Eliminations	Consolidated
Net sales							
Outside customers	\$1,647,163	\$1,138,378	\$1,112,621	\$1,092,421	\$16,206	\$—	\$5,006,789
Inter-segment sales and transfer	2,015,948	8,053	195,449	774,983	60	(2,994,493)	—
Total	3,663,111	1,146,431	1,308,070	1,867,404	16,266	(2,994,493)	5,006,789
Costs and expenses	3,323,070	1,114,942	1,298,819	1,812,354	15,632	(2,905,890)	4,658,927
Operating income	340,041	31,489	9,251	55,050	634	(88,603)	347,862
Identifiable assets	3,255,383	409,301	465,907	619,642	9,817	(759,102)	4,000,948

The effects of the changes in accounting policies and procedures on the geographic segment information were as follows:

In connection with Note 2 (k), the change in accounting for directors' retirement benefits decreased operating income in the "Japan" segment by ¥174 million for the year ended March 31, 2001.

Overseas sales of the Companies by geographic area for the years ended March 31, 2002, 2001 and 2000 were as follows:

Year ended March 31, 2003	Millions of yen					Total
	North America	Europe	Asia	Other areas		
Overseas sales	¥134,309	¥135,342	¥164,553	¥5,183	¥439,387	
Net sales					¥601,816	
Ratio of overseas sales (%)	22%	23%	27%	1%	73%	

Year ended March 31, 2002	Millions of yen					Total
	North America	Europe	Asia	Other areas		
Overseas sales	¥131,759	¥121,767	¥123,029	¥5,697	¥382,252	
Net sales					¥540,268	
Ratio of overseas sales (%)	24%	23%	23%	1%	71%	

Year ended March 31, 2001	Millions of yen					Total
	North America	Europe	Asia	Other areas		
Overseas sales	¥129,880	¥112,569	¥124,436	¥6,998	¥373,883	
Net sales					¥573,064	
Ratio of overseas sales (%)	23%	19%	22%	1%	65%	

Year ended March 31, 2003	Thousands of U.S. dollars					Total
	North America	Europe	Asia	Other areas		
Overseas sales	\$1,117,379	\$1,125,973	\$1,368,993	\$43,120	\$3,655,466	
Net sales					\$5,006,789	
Ratio of overseas sales (%)	22%	23%	27%	1%	73%	

## 16. SUBSEQUENT EVENTS

A. Appropriations of retained earnings for the year ended March 31, 2003 were duly approved at the annual general meeting of the stockholders held on June 27, 2003 as follows:

	Millions of yen	Thousands of U.S. dollars
Cash dividends ¥6 (\$0.05) per share	¥1,083	\$9,010
Bonuses to directors	50	416

B. Transfer to the Japanese government of the substantial portion of EPFs

On April 15, 2003, the Company received an approval from the Ministry of the Health, Labor and Welfare to transfer the future benefit obligations related to the government substitutional portion. The accounting principles and practices generally accepted in Japan require a company to account for the transfer of the substitutional portion either upon receipt of an approval to transfer the future benefit obligation, or on the date of the return of the benefit obligations and the related plan assets to the Japanese government. Had the Company accounted for the transfer upon receipt of the approval releasing the future benefit obligations, a gain of ¥8,697 million (\$72,354 thousand) would have been recorded on April 15, 2003. Actual gain upon completion of the transfer would differ from such amounts.

C. Offering of convertible bonds

On June 9, 2003, the Company completed an offering of ¥30,000 million (\$249,584 thousand) zero coupon convertible bonds due 2010. The bonds are convertible, at the option of the holder, into the Company's common stock at an initial conversion price of ¥1,706 per share, exercisable on or after June 23, 2003, subject to adjustments under certain events, as defined. The bonds may also be redeemed at the option of the Company under certain redemption events, as defined. The bonds were sold at a premium of ¥450 million (\$3,744 thousand) which has been recorded as a premium on bond issuance. The bond premium will be amortized to income using the straight-line method over the term of the bonds. The Company expects to use the net proceeds from the bonds for repayment of the Company's outstanding long-term debt.

# REPORT OF INDEPENDENT AUDITORS



■ Certified Public Accountants  
Hibiya Kokusai Bldg.  
2-2-3, Uchisaiwai-cho  
Chiyoda-ku, Tokyo 100-0011  
C.P.O. Box 1196, Tokyo 100-8641

■ Phone: 03 3503-1191  
Fax: 03 3503-1277

## Report of Independent Auditors

The Board of Directors and Stockholders  
Alps Electric Co., Ltd.

We have audited the accompanying consolidated balance sheets of Alps Electric Co., Ltd. (the "Company") and consolidated subsidiaries as of March 31, 2003 and 2002, and the related consolidated statements of income, stockholders' equity, and cash flows for each of the three years in the period ended March 31, 2003, all expressed in Japanese yen. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards, procedures and practices generally accepted and applied in Japan. Those standards, procedures and practices require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Alps Electric Co., Ltd. and consolidated subsidiaries at March 31, 2003 and 2002, and the consolidated results of their operations and their cash flows for each of the three years in the period ended March 31, 2003, in conformity with accounting principles and practices generally accepted in Japan.

As discussed in Note 16 to the consolidated financial statements, the Company received an approval from the Ministry of Health, Labor and Welfare to transfer the future benefit obligation related to the substitutional portion of an Employees' Pension Fund plan on April 15, 2003.

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended March 31, 2003 are presented solely for convenience. Our audit also included the translation of yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 1 to the consolidated financial statements.

A handwritten signature in cursive script that reads "Shin Nihon &amp; Co." followed by a period.

June 27, 2003

*See Note 1 to the consolidated financial statements which explains the basis of preparation of the consolidated financial statements of Alps Electric Co., Ltd. and consolidated subsidiaries under Japanese accounting principles and practices.*

# DIRECTORS & AUDITORS

(AS OF JUNE 27, 2003)



**Masataka Kataoka**  
President



**Shigeo Matsubara**  
Representative Senior  
Managing Director  
General Manager,  
Corporate Planning



**Isao Tanimoto**  
Managing Director  
General Manager,  
Business Development  
Headquarters and  
Quality Control



**Hirokuni Tanabe**  
Managing Director  
General Manager,  
Production and Magnetic  
Devices Division



**Kazuya Yoshikoshi**  
Managing Director  
General Manager,  
Automotive Products  
Division

**Directors**  
Kentaro Kutsuzawa  
Seizo Ishiguro  
Koji Hotta  
Yojo Yasuoka  
Hirotohi Okamura  
Koichi Yamazaki  
Hideharu Kougashira  
Takahide Sato  
Katsumi Tobita  
Yasuhiro Fujii  
Seishi Kai

**Auditors**  
Akira Yoneda  
Sadao Kunichika  
Mitsunori Narisako  
Akira Takenouchi

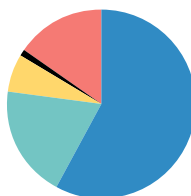
# CORPORATE DATA

## Principal Stockholders

(As of March 31, 2003)

	Percentage of total shares outstanding
Japan Trustee Services Bank, Ltd. (Trust account) .....	12.8%
The Master Trust Bank of Japan, Ltd. (Trust account) .....	7.4%
UFJ Trust Bank, Limited (Trust account) .....	3.2%
The Bank of Tokyo-Mitsubishi, Limited .....	2.9%
Sumitomo Mitsui Banking Corporation .....	2.9%

## Classification of Stockholders



Financial Institutions	57.9%
Foreign Investors	19.2%
Corporations	6.5%
Securities Companies	1.1%
Individual Investors and Others	15.3%

## ALPS ELECTRIC CO., LTD.

(As of June 27, 2003)

### Head Office/Sales and Marketing

1-7, Yukigaya-otsuka-cho, Ota-ku, Tokyo  
145-8501, Japan

Phone: +81 (3) 3726-1211

Fax: +81 (3) 3728-1741

### Business Development Headquarters

Process Technology Development Center  
Production Engineering Development Center  
Technical Master Training Center

### Business Divisions

Mechatronic Devices Division  
Magnetic Devices Division  
Communication Devices Division  
Peripheral Products Division  
Automotive Products Division

### Date of Establishment

November 1, 1948

### Paid-in Capital

¥22,913 million (US\$190.6 million)

### Number of Employees

30,243 (As of March 31, 2003)

### Common Stock

Authorized: 500,000,000 shares  
Issued: 180,727,015 shares  
Number of Stockholders: 16,271  
(As of March 31, 2003)

### Preferred Stock

Stock Exchange Listings  
Tokyo Stock Exchange  
Osaka Securities Exchange  
Nagoya Stock Exchange

### Transfer Agent for Common Stock

The Chuo Mitsui Trust & Banking Co., Ltd.  
33-1, Shiba 3-chome, Minato-ku, Tokyo  
105-8574, Japan

### ALPS Web Site

<http://www.alps.com>

# OUTLINE OF GLOBAL NETWORK



## 8 ALPS ELECTRIC EUROPA GMBH

European manufacturing and sales base with offices in Düsseldorf, München and Paris

Head office: Hansaallee 203, D-40549, Düsseldorf, Germany  
Phone: +49 (211) 59770 Fax: +49 (211) 5977146



## 13 ALPS ELECTRIC CZECH, S.R.O.

Manufacture of tuners and keyboards for PCs

HEAD OFFICE: Drevarska 17, Boskovice 680 01, Czech Republic  
Phone: +420 (516) 490111 Fax: +420 (516) 455980



## 12 ALPS ELECTRIC (IRELAND) LIMITED

Manufacture of automotive products at two plants in Ireland

Head office & Plant: Clara Road, Millstreet Town, County Cork, Ireland  
Phone: +353 (29) 70677 Fax: +353 (29) 70603



## 17 ALPS (CHINA) CO., LTD.

An investment company in China that manages financing for production companies in China and supports sales activities

Head office: Nan Yin Bldg., Rm. 2508, No. 2 Dong San Huan Bei Lu, Chaoyang District, Beijing, P.R. of China  
Phone: +86 (10) 64107411 Fax: +86 (10) 64107414



## 23 WUXI ALPS ELECTRONICS CO., LTD.

Manufacture and sale of such mechatronic devices as switches, as well as magnetic heads for computers

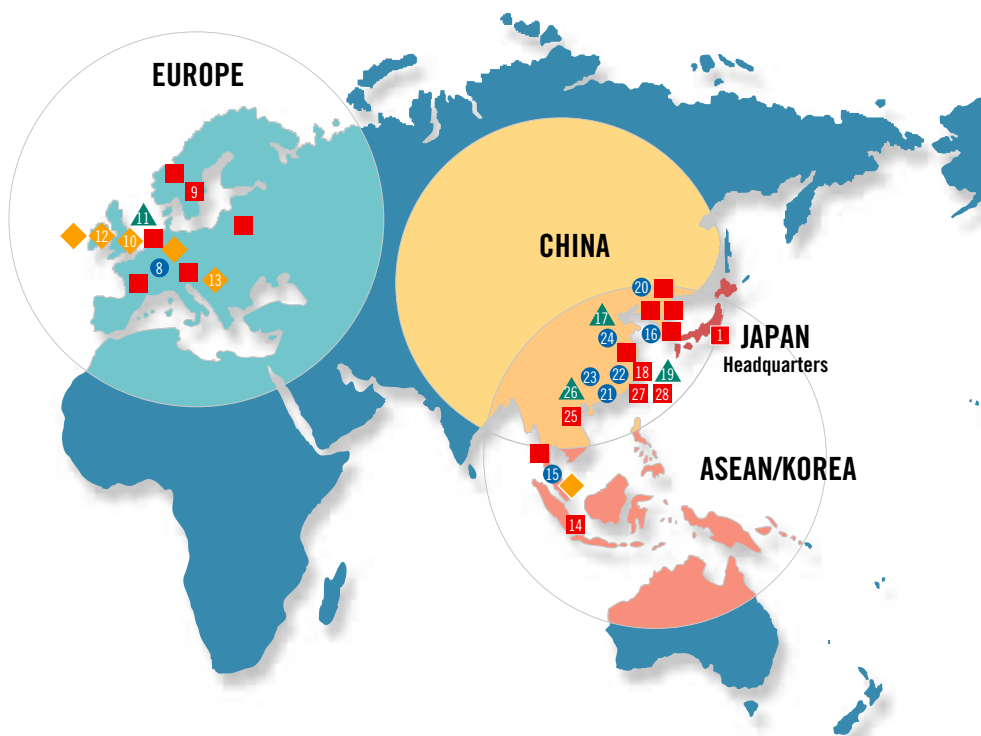
Head office & Plant: LOT No.135/136, Wuxi-Singapore Industrial Park, Wuxi, Jiangsu, P.R. of China  
Phone: +86 (510) 5281211 Fax: +86 (510) 5280311



## 20 DALIAN ALPS ELECTRONICS CO., LTD.

Manufacture and sale of potentiometers, sensors, automotive products at new plant completed in 2002

HEAD OFFICE & PLANT: No. 6 Hanzheng Road, Jinzhou, Economic Development Zone, Dalian, P.R. of China  
Phone: +86 (411) 7687110 Fax: +86 (411) 7693171





- Manufacturing and Sales Base
- ◆ Manufacturing Base
- Sales Base
- ▲ Holding Company, R&D Center, etc.

1 ALPS Electric Head Office

2 ALPS Electric (North America)

3 ALPS Electric (USA)

4 ALPS Automotive

5 Alcom Electronicos de Mexico

6 ALPS do Brasil Industria e Comercio

7 ALPS da Amazonia

8 ALPS Electric Europa

9 ALPS Nordic

10 ALPS Electric (UK)

11 ALPS Electric Technology Center (UK)

12 ALPS Electric (Ireland)

13 ALPS Electric Czech

14 ALPS Electric (S)

15 ALPS Electric (Malaysia)

16 ALPS Electric Korea

17 ALPS (China)

18 ALPS (Shanghai) International Trading

19 ALPS Communication Devices Technology (Shanghai)

20 Dalian ALPS Electronics

21 Ningbo ALPS Electronics

22 Shanghai ALPS Electronics

23 Wuxi ALPS Electronics

24 Tianjin Alps Electronics

25 ALPS Electric Hong Kong Branch

26 ALPS Electronics Hong Kong

27 ALPS Electric Taipei Representative Office

28 ALPS Electronics Taiwan



**2 3 ALPS ELECTRIC (NORTH AMERICA), INC./ ALPS ELECTRIC (USA), INC.**

Headquarters in San Jose, California; Conducts umbrella control over business in North America as a marketing development and sales base

HEAD OFFICE: 30 Las Colinas Lane, San Jose, California 95119-122, U.S.A.  
Phone: +1 (408) 361-6400 Fax: +1 (408) 226-7301



**4 ALPS AUTOMOTIVE, INC.**

Headquarters in Detroit, Michigan; manufacture and sale of automotive products; sales offices in Ohio and Indiana

HEAD OFFICE: 1500 Atlantic Boulevard, Auburn Hills, Michigan 48326, U.S.A.  
Phone: +1 (248) 391-9950 Fax: +1 (248) 391-2500



**5 ALCOM ELECTRONICOS DE MEXICO, S.A. DE C.V.**

Originally established as a manufacturing base of Alpine, this subsidiary has served Alps since 1995 as a production base of automotive products.

HEAD OFFICE: Ave. De Las Misiones Este No. 145, Parque Industrial "Las Californias", Carret. San Luis, Km. 10.5, Mexicali, B.C. C.P. 21600, Mexico  
Phone: +52 (65) 61-77-77 Fax: +52 (65) 61-47-54



**16 ALPS ELECTRIC KOREA CO., LTD.**

Manufacture and sale of various electronic components at its comprehensive production facilities that include mold fabrication processes

HEAD OFFICE & PLANT: 970-1, Jangduk-dong, Gwangsan-gu, Kwangju-City, 506-251, Republic of Korea  
Phone: +82 (62) 950-2114 Fax: +82 (62) 951-9722



**14 ALPS ELECTRIC (S), PTE. LTD.**

Sale of various electronic components throughout the ASEAN region

HEAD OFFICE: 10 Anson Road, #29-15, International Plaza, Singapore 079903  
Phone: +65-62262933 Fax: +65-62207479



**15 ALPS ELECTRIC (MALAYSIA) SDN. BHD.**

Manufacture and sale of various electronic components; holds two plants in Malaysia

HEAD OFFICE & PLANT: Nilai Industrial Estate, Locked Bag No. 3, Nilai Post Office, 71809 Nilai, Negeri Sembilan Darul Khusus, Malaysia  
Phone: +60 (6) 7991515 Fax: +60 (6) 7991654

